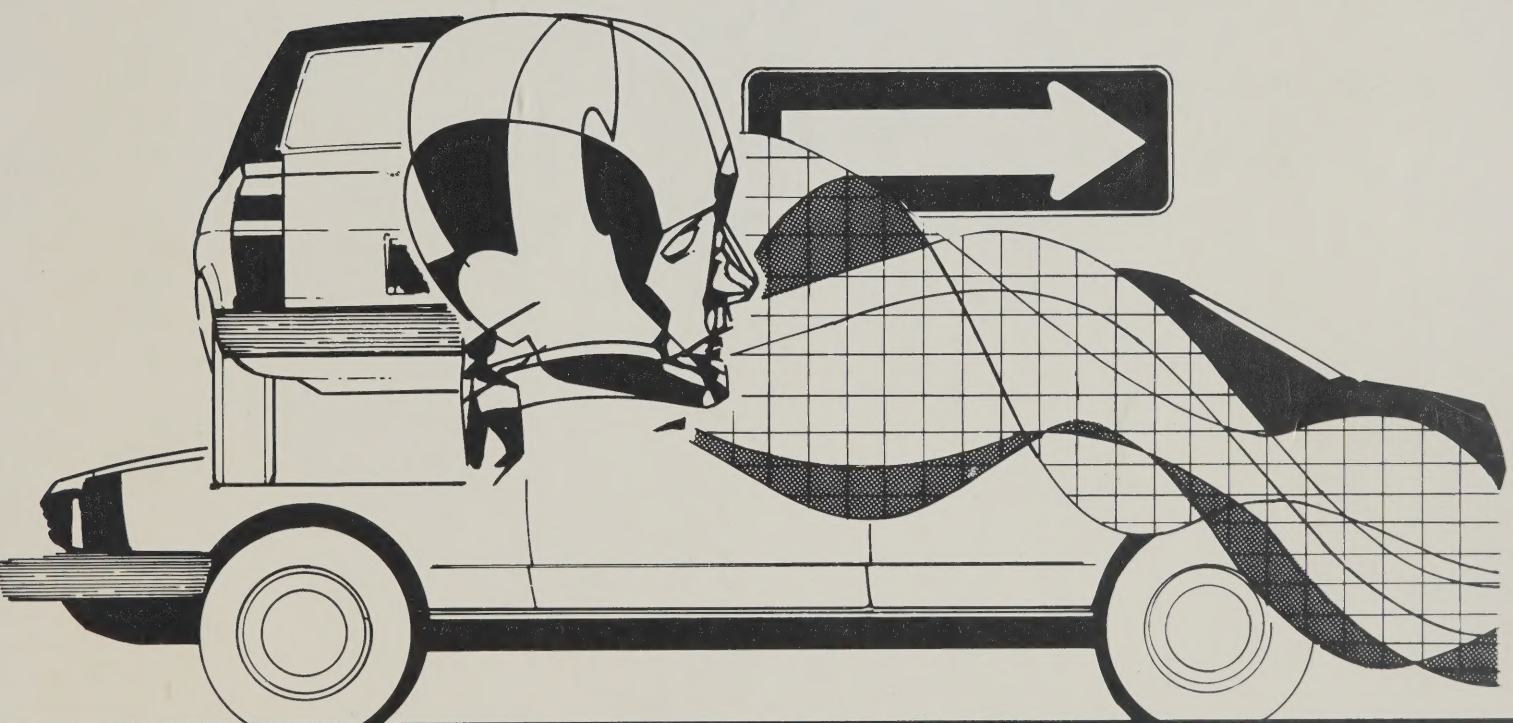


TP 8156E

ALCOHOL USE BY PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS: 1985

CA1
T260
-A46



**Transport
Canada**

**Transports
Canada**

Road Safety

Sécurité routière

Canada



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

<https://archive.org/details/39032808050122>

CA 1
T260
-1985
A47

**ALCOHOL USE BY PERSONS FATALLY INJURED
IN MOTOR VEHICLE ACCIDENTS:**

1985

A.C. Donelson, P.J. Walsh, and G.C. Haas

December 1986

The Traffic Injury Research Foundation of Canada

171 Nepean Street, Suite 600

Ottawa, Ontario

K2P 0B4

REPORT DOCUMENTATION FORM

| | | |
|---|---|--|
| 1 Transport Canada Report No TP 8156E-85 | 2 TDC Project No | 3 Recipient's Catalogue No |
| 4 Title and Subtitle ALCOHOL USE BY PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS: 1985 | 5 Report Date 1987 | 6 Performing Organization Report No |
| 7 Author(s) G.C. Haas, P.J. Walsh & A.C. Donelson | 8 Transport Canada File No | |
| 9 Performing Organization Name and Address Traffic Injury Research Foundation 171 Nepean St., Ottawa, Ont. K2P 0B4 | 10 DSS File No | 11 DSS or Transport Canada Contract No |
| 12 Sponsoring Agency Name and Address Transport Canada (ASF) | 13 Type of Report and Period Covered | 14 Sponsoring Agency Code Final |
| 15 Supplementary Notes | 16 TDC Project Officer J. Krzyzewski | |
| 17 Abstract <p style="text-align: right;">May 1987</p> <p style="text-align: center;"><u>ALCOHOL USE BY FATALLY INJURED MVA VICTIMS: 1985</u></p> <p style="text-align: center;"><u>ABSTRACT</u></p> <p>The report briefly describes the conduct of a project to collect and computerize data on alcohol use by persons fatally injured in motor vehicle accidents in seven provinces of Canada, and presents, in numerical tables, an overview of findings from the current and recent years. A key feature of the fatality database is the inclusion of objective toxicological data (from body samples) on alcohol use by victims killed in motor vehicle crashes. The first appendix presents tables showing time trends in the complete data set for the number of fatalities by type of victim, and for automobile drivers only. Alcohol use by BAC ranges is presented for drivers of four categories of vehicles, and for drivers distributed by age, by sex, and by collision type (single vehicle or multiple vehicle). Similar data for each province are displayed in subsequent appendices.</p> | | |
| 18 Key Words Alcohol use, traffic accidents, motor vehicle, fatal injuries, database. | 19 Distribution Statement | |
| 20 Security Classification (of this report) Unclassified | 21 Security Classification (of this page) Unclassified | 22 No. of Pages 23 Price |

ABSTRACT

The report briefly describes the conduct of a project to collect and computerize data on alcohol use by persons fatally injured in motor vehicle accidents in eight provinces of Canada. It presents in numerical tabulations an overview of findings from the current and recent years. A key feature of the fatality database is the inclusion of objective data from body samples on alcohol consumption by victims killed in road traffic accidents. The first appendix presents tables showing time trends in the number of fatalities by type of victim, and for drivers only, for the aggregate of the same seven provinces as covered in previous years. Alcohol use by BAC ranges is presented for drivers of four categories of vehicle, and for drivers distributed by age, by sex, and by single versus multiple vehicle collision. Similar tables for each province are displayed in separate appendices, and finally, the same tables for the aggregate of eight provinces (i.e. now including Nova Scotia) are appended as well.

ALCOHOL USE BY PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS: 1985

CONTENTS

| | <u>Page</u> |
|--|-------------|
| PREFACE | v |
| 1.0 INTRODUCTION | 1 |
| 1.1 Background | 1 |
| 1.2 Scope of Report | 2 |
| 2.0 DESIGN AND CONDUCT OF THE PROJECT | 5 |
| 2.1 Design of Project | 5 |
| 2.2 Conduct of Project | 7 |
| 2.3 A Description of 1985 Case Files | 8 |
| 3.0 AN OVERVIEW OF FINDINGS | 17 |
| APPENDIX A. AGGREGATE STATISTICS (Seven Provinces) | |
| APPENDIX B. BRITISH COLUMBIA | |
| APPENDIX C. ALBERTA | |
| APPENDIX D. SASKATCHEWAN | |
| APPENDIX E. MANITOBA | |
| APPENDIX F. ONTARIO | |
| APPENDIX G. NEW BRUNSWICK | |
| APPENDIX H. PRINCE EDWARD ISLAND | |
| APPENDIX I. NOVA SCOTIA | |
| APPENDIX J. AGGREGATE STATISTICS (Eight Provinces) | |
| APPENDIX K. FATALITY DATABASE: DATA SPECIFICATION | |

ACKNOWLEDGEMENT

This report was prepared by the Traffic Injury Research Foundation of Canada in fulfilment of an agreement with Transport Canada and the Canadian Council of Motor Transport Administrators, the two agencies that, jointly, provided the funds for the project described herein.

Publishing of this report is undertaken solely by Transport Canada, and it has been translated and is available in French.

PREFACE

The Traffic Injury Research Foundation of Canada (TIRF) has compiled data on alcohol use by persons fatally injured in motor vehicle accidents since 1974. This most basic and mundane of all research -- data gathering -- has, over time, produced a valuable tool for applied research on the alcohol-(fatal)crash problem: the Fatality Database. At present, case files are complete from 1973 through 1985 for seven provinces (British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and Prince Edward Island). For calendar year 1985, data from Nova Scotia have also been obtained. The Fatality Database now contains information on over 50,000 persons fatally injured in motor vehicle accidents.

The Fatality Database evolved to its current form during a series of projects conducted by TIRF in the 1970s. Data for calendar years 1977 through 1982 were gathered under two projects, both jointly sponsored by the Departments of Transport and National Health and Welfare. The Road Safety and Motor Vehicle Regulation Directorate of Transport Canada sponsored TIRF's collection of 1983 data. Our gathering of 1984 and 1985 data was jointly sponsored by the Canadian Conference of Motor Transport Administrators (CCMTA) and Transport Canada. We acknowledge these latter two agencies not only for their past support but also for their continuing commitment to fund the maintenance and extension of the Fatality Database.

Deaths, injuries, and other human and economic losses due to traffic crashes -- whether or not related to alcohol use -- are a social problem that crosses lines traditionally drawn between health, legal, and transportation-safety areas. To obtain data on alcohol use by persons fatally injured in motor vehicle accidents requires extensive interagency cooperation. The projects that created and extended the Fatality Database could not have been done without the cooperation and assistance of many different agencies. During the present project, eighteen agencies in eight provinces participated. In particular, we acknowledge

the generous contributions of coroners, medical examiners, and traffic-safety specialists in provinces now included in the Fatality Database.

We thank all who assisted us in this work.

1.0 INTRODUCTION

This report briefly describes the conduct of the project to collect data on alcohol use by persons fatally injured in motor vehicle accidents in eight Provinces during 1985. The other product of this project is a magnetic tape containing 1985 case files. The case files were designed to maintain continuity with previous years' data and, at the same time, to facilitate their linkage to more complete data on fatal motor vehicle accidents compiled by the Provinces and by Transport Canada. A series of appendices to this report presents selected findings for each Province included in the project as well as seven- and eight-province aggregate statistics.

1.1 Background

Along with the police, coroners and medical examiners investigate the cause and manner of sudden, unexpected deaths, including deaths associated with motor vehicle accidents. Investigations often include toxicologic analyses of body fluids to determine the presence and amount of drugs, especially alcohol. In most provinces, coroners' data on alcohol use among traffic fatalities remain separate from police-reported data on motor vehicle accidents (MVA). Even when these data are combined at the provincial level, information needed to interpret alcohol-test results is not routinely recorded, for example, the elapsed time from crash involvement to death. As in the past, therefore, the primary objective of this project was to ensure that coroners' data on alcohol use by traffic fatalities were linked, meaningfully, to MVA data.

Another purpose of the project was to extend the Fatality Database in a way that maintained continuity with previous years' data. The availability of a continuous set of historical data has renewed importance given recent changes in Criminal Code statutes regarding impaired driving and penalties for these offences. Whether or not changes in Law and intensified enforcement have reduced drinking-driving problems will remain a matter of anecdote and impression in the absence of empirical data. Moreover, to measure progress, baseline data on the magnitude of

problems addressed are very much needed. With the completion of this project, the Fataility Database provides baseline data for seven provinces for 13 years, which, in aggregate, also indicate Canadian trends. Now extended through calendar year 1985, the Fatality Database offers one means of evaluating the impact of recent and on-going efforts to prevent impaired driving and its damaging consequences.

Although the Fatality Database has proven useful in its own right, case files contain a limited set of data on traffic fatalities and on motor vehicle accidents resulting in one or more deaths. Thus, to enhance the value of data unique to the Fatality Database, we now provide information needed to link case files with police-reported data on fatal motor vehicle accidents. These data are routinely compiled by each Province and produced in electronic form. A common set of police-reported data on all motor vehicle accidents resulting in injury or death is maintained by Transport Canada in the Traffic Accident Information Data Bank (TRAID). To ensure unambiguous linking of case files from the Fatality Database with existing crash files -- while still maintaining confidentiality of personal information on traffic victims (e.g., name) -- requires a unique crash identifier and greater specification of the traffic fatality (e.g., police-assigned number of vehicle occupied by the victim, victim's position in vehicle). These data were obtained either from hard-copy accident reports or from electronic files. Our approach to linking coroners' data with police-reported data is described in more detail in the following section.

1.2 Scope of Report

This report has three sections and eleven appendices.

Section 2.0, Design and Conduct of the Project, outlines how the data were gathered and computerized and reports (1) the number of case files established for 1985 and (2) the rates of testing for alcohol.

Section 3.0, An Overview of Findings, briefly discusses selected statistics for 1985 and compares them with data from previous years.

A series of appendices (Appendix A through Appendix J) contains tables of selected data for combined sets of 1985 cases (seven- and eight-province aggregate statistics) and similar tables for each of the eight provinces. In addition, data for other years are included.

Appendix K contains a list of variables that specifies data included in 1985 cases files.

2.0 DESIGN AND CONDUCT OF THE PROJECT

Gathering data on alcohol use by persons fatally injured in motor vehicle accidents involves, above all, linking two or more sources of needed information. In Canada, the process of collecting and computerizing these data has been engaged on a more-or-less annual basis since the mid-1970s. As a result, the methods and procedures have become routine and increasingly more efficient. This section briefly describes how 1985 data for the Fatality Database were obtained.

2.1 Design of Project

The Fatality Database consists of "case files", each representing a person fatally injured in a motor vehicle accident. Two sources of information provide data for most case files: (1) reports of investigations by coroners and medical examiners, along with supporting documentation; and (2) reports prepared by police officers who investigated fatal motor vehicle accidents, including electronic data based on those reports. Linkage of these and other sources of data is not always straightforward. For example, definitions of "motor vehicle fatality" and "reportable accident" can produce less than complete overlap of police and coroner cases within a province. Moreover, definitions of "fatal motor vehicle accident" used by transportation agencies also vary among provinces. In order to standardize our collection of data and to include as complete a set of cases as possible in the Fatality Database, we have broadly defined a motor vehicle fatality as follows: any person dying within 12 months as a result of an accident involving a motor vehicle.

Our definition of "motor vehicle fatality" is more inclusive than those used by provincial transportation agencies. For example, a motor vehicle accident officially defined as a fatal accident by transportation agencies depends on where the accident occurred and the time elapsed between the occurrence of the accident and the death of an involved person. Typical illustrations of motor vehicle fatalities excluded by transportation agencies are deaths from farm-tractor or

snowmobile accidents on private property and cases in which victims live longer than three to six months after a traffic crash on a public roadway. Our rationale for a broader definition that includes cases in these latter categories is twofold: (1) "impaired driving" as a problem behaviour extends beyond the public highways, as recognized in the recent revision of the Criminal Code of Canada; and (2) deaths due to impaired driving can be accurately counted only if virtually all victims of motor vehicle accidents are identified -- even if they live up to a year after the accident itself.

Motor vehicle fatalities not reported by provincial transportation agencies can be identified in files classified by "type of death" by coroners and medical examiners in all provinces included in the Fatality Database except Prince Edward Island. Thus, the numbers of case files in our database will be somewhat larger than those reported by provincial transport agencies, again with the exception of Prince Edward Island. At the same time, we should note here that our definition of "motor vehicle fatality" is less inclusive than criteria employed by coroners and medical examiners to classify "sudden or unexpected deaths". For example, we have encountered cases in which persons dying more than 10 years after involvement in a motor vehicle accident were considered traffic fatalities -- these persons had died as a result of medical conditions attributable to crash involvement several to many years before. Some coroner cases involve heart attacks that occur while persons operate motor vehicles. These fatalities are certainly related to motor vehicles (perhaps stresses associated with driving can precipitate heart attacks!); however, we have traditionally restricted the Fatality Database to cases involving deaths resulting from motor vehicle accidents. Similarly, persons committing suicide in ways involving motor vehicles are also excluded. Thus, the Fatality Database will include fewer case files than those categorized by coroners and medical examiners as involving motor vehicles.

Our general approach to generating case files is similar for each of the Provinces included in the Fatality Database. There are four steps in the process:

- o identification of persons fatally injured in motor vehicle accidents;
- o linkage of sources of information on the victims and the motor vehicle accidents in which they were involved;
- o data capture; and
- o data processing.

Given characteristics and indexing of coroner/medical examiner files and police-reported accident data, the only means of linking these data sources is victim name. As in the past, we initiated development of case files by processing police reports and police-reported data from provincial transportation agencies, thus ensuring capture of data on virtually all reported "traffic fatalities". Additional case files were then developed in the field during visits to provincial offices of coroners and medical examiners.

2.2 Conduct of Project

The general procedure for data capture was as follows. Victim names and data for some variables were obtained from police-reported information. These data were recorded directly on specially prepared coding sheets. To complete capture of data for these cases, project staff accessed victim files maintained by coroners and medical examiners. At provincial offices, staff members obtained toxicologic and other data, as well as complete data on other motor vehicle fatalities not identified through provincial transportation agencies.

This project differed from previous years' work in that we used, where possible, another (previously untapped) source of information: electronic data on fatal motor vehicle accidents, provided by provincial transportation agencies. Our aims in soliciting information in this form were (1) to increase efficiency in identifying persons fatally injured in motor vehicle accidents as reported by provincial transportation agencies; (2) to obtain certain data in electronic form, thus obviating redundant coding and computerization; and, most importantly,

(3) to facilitate linkage between case files in the Fatality Database and existing files in provincial and other databases (especially, TRAUD). Because we made use of electronic data, either instead of or in addition to hard-copy accident reports, our procedures for data capture differed among provinces more so than in the past.

The general procedure for data capture was as follows. Victim names and data for some variables were obtained from police-reported information. These data were recorded directly on specifically prepared coding sheets. To complete capture of data for these cases, project staff accessed victim files maintained by coroners and medical examiners. At provincial offices, staff members obtained toxicologic and other data, as well as complete data on other motor vehicle fatalities not identified through provincial transportation agencies. Table 2-1 summarizes how 1985 data were obtained and processed for each of the eight provinces. Appendix K specifies data included in 1985 case files.

2.3 A Description of 1985 Case Files

Table 2-2 compares numbers of traffic fatalities reported by provincial transportation agencies with numbers of motor vehicle fatalities included in the Fatality Database. As noted above, for all provinces except Prince Edward Island, the number of case files in the database is somewhat higher than that officially reported by transportation agencies. In Prince Edward Island, however, only persons identified by the Highway Safety Division of the Department of Highways could be included. Thus, as in previous years, the number of case files for Prince Edward Island corresponds to the number of traffic fatalities reported by the Department of Highways.

Table 2-3 presents data on the distribution of fatalities according to "type of victim" (driver, passenger, pedestrian). Consistent with past years' data, over 50% of fatalities were drivers (or operators) of motor vehicles. In 1985, about 82% of fatalities were occupants of motor vehicles; 16% of motor vehicle fatalities were pedestrians. A larger number of 1985 fatalities were coded as "other/unknown" (54 of 3119

TABLE 2-1
SUMMARY OF PROVINCIAL DATA CAPTURE

| <u>Province</u> | <u>Method</u> |
|------------------|---|
| British Columbia | <ul style="list-style-type: none">o All data were coded from copies of reports and records prepared by police and coroners.o Coded data keypunched (commercial firm) and processed. <hr/> |
| Alberta | <ul style="list-style-type: none">o Data coded from files of chief medical examiner and then keypunched (commercial firm).o Supplementary data from police reports entered directly into case files. <hr/> |
| Saskatchewan | <ul style="list-style-type: none">o Data coded from coroners' files and then keypunched (commercial firm).o Other information obtained electronically from magnetic tape containing police-reported data on fatal motor vehicle accidents.o Data sets merged electronically. <hr/> |
| Manitoba | <ul style="list-style-type: none">o Information other than toxicologic data obtained electronically from magnetic tape containing police-reported data on fatal motor vehicle accidents.o Based on information sheets provided by medical examiner, toxicologic data entered directly into case files. <hr/> |

TABLE 2-1 (Continued)

| | |
|----------------------|--|
| Ontario | <ul style="list-style-type: none">o Information other than toxicologic data obtained electronically from magnetic tape containing police-reported data on fatal motor vehicle accidents.o Toxicologic data coded from files of the Office of the Chief Coroner for Ontario, Toronto, and keypunched (commercial firm).o Data sets merged electronically. |
| New Brunswick | <ul style="list-style-type: none">o Information from coroners' files coded, then keypunched (commercial firm).o Other data obtained electronically from magnetic tape; identification of victims and verification of descriptive information done with copies of hard-copy accident reports.o Data sets merged electronically. |
| Prince Edward Island | <ul style="list-style-type: none">o Information on fatal motor vehicle accidents and traffic fatalities coded from hard-copy reports and records, then keypunched (commercial firm). |
| Nova Scotia | <ul style="list-style-type: none">o Information from medical examiner files coded, then keypunched (commercial firm).o Other data obtained electronically from magnetic tape.o Data sets merged electronically. |

TABLE 2-2

NUMBERS OF FATALITIES REPORTED BY PROVINCIAL TRANSPORTATION AGENCIES
AND INCLUDED IN THE FATALITY DATABASE

| <u>PROVINCE</u> | | <u>YEAR</u> | | | | | |
|------------------|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> |
| British Columbia | Province | 811 | 859 | 601 | 607 | 525 | 483 |
| | Fatality Database | 810 | 859 | 625 | 607 | 539 | 502 |
| Alberta | Province | 647 | 700 | 502 | 428 | 470 | 533 |
| | Fatality Database | 691 | 731 | 545 | 447 | 497 | 554 |
| Saskatchewan | Province | 265 | 262 | 240 | 235 | 221 | 214 |
| | Fatality Database | 290 | 277 | 252 | 251 | 241 | 243 |
| Manitoba | Province | 175 | 198 | 151 | 133 | 127 | 133 |
| | Fatality Database | 189 | 214 | 167 | 146 | 149 | 141 |
| Ontario | Province | 1508 | 1445 | 1138 | 1204 | 1132 | 1191 |
| | Fatality Database | 1644 | 1567 | 1292 | 1335 | 1301 | 1316 |
| New Brunswick | Province | 214 | 188 | 204 | 122 | 162 | 142 |
| | Fatality Database | 238 | 198 | 218 | 132 | 175 | 152 |
| Nova Scotia | Province | - | - | - | - | - | 155 |
| | Fatality Database | - | - | - | - | - | 174 |
| P.E.I. | Province | 35 | 21 | 16 | 31 | 31 | 37 |
| | Fatality Database | 35 | 21 | 16 | 31 | 31 | 37 |

Traffic Injury Research Foundation of Canada, 1986.

TABLE 2-3

DISTRIBUTION OF FATALITIES BY TYPE OF VICTIM

| | <u>DRIVER(%)</u> | <u>PASSENGER(%)</u> | <u>PEDESTRIAN(%)</u> | <u>OTHER/ UNKNOWN(%)</u> | <u>TOTAL(%)</u> |
|----------------------|------------------|---------------------|----------------------|------------------------------|-----------------|
| British Columbia | - 267 (53.2) | 153 (30.5) | 77 (15.3) | 5 (1.0) | 502 (100) |
| Alberta | - 324 (58.5) | 154 (27.8) | 53 (9.6) | 23 (4.2) | 554 (100) |
| Saskatchewan | - 126 (51.9) | 64 (26.3) | 41 (16.9) | 12 (4.9) | 243 (100) |
| Manitoba | - 70 (49.6) | 39 (27.7) | 29 (20.6) | 3 (2.1) | 141 (100) |
| Ontario | - 705 (53.6) | 377 (28.6) | 227 (17.2) | 7 (0.5) | 1316 (100) |
| New Brunswick | - 83 (54.6) | 37 (24.3) | 31 (20.4) | 1 (0.7) | 152 (100) |
| Prince Edward Island | - 15 (40.5) | 7 (18.9) | 15 (40.5) | 0 (0) | 37 (100) |
| Nova Scotia | - 98 (56.3) | 45 (25.9) | 28 (16.1) | 3 (1.7) | 174 (100) |
| <hr/> | | | | | |
| Total | - 1688 (54.1) | 876 (28.1) | 501 (16.1) | 54 (1.7) | 3119 (100) |

Traffic Injury Research Foundation of Canada, 1986.

cases, 1.7%), compared to 1984 case files (15 of 2879 cases, 0.5%). In addition to multiple-fatality accidents for which police were unable to identify the driver, other reasons explain the higher percentage of "other/unknown" cases. For example, during this project, codes for type of victim were derived from information in standardized formats used in police reports. The aim of this method was to ensure unambiguous linkage of database case files with victim files in other databases containing police-reported accident data. But, as a result, persons fatally injured in motor vehicle accidents as "hangers-on" were coded as "other" not as passengers. Moreover, reliance on police-reported data for the variable type of victim led to a greater number of missing values, primarily for late deaths and nonreportable fatal motor vehicle accidents identified in coroner and medical examiner files. If possible, we will follow up these latter cases during the capture of data for calendar year 1986. The number of case files with "other/unknown" values for type of victim will probably decrease to about 25, less than one percent of all cases, which is consistent with previous years' data.

Finally, the reader should note that various proportions of fatalities in Table 2-3 may differ slightly from official provincial statistics. This is primarily due to differences in definitions. For example, most provinces separate bicyclists and motorcycle drivers and passengers from "driver" and "passenger" totals. To arrive at a similar distribution using the Fatality Database, the variable containing information about the type of vehicle occupied (or ridden) by the victim must also be used.

The inclusion of objective data on alcohol use by persons fatally injured in motor vehicle accidents represents a key feature of the Fatality Database. Table 2-4 presents information on rates of alcohol testing during 1985. The number and percentage of fatalities tested for alcohol are given for each group of fatalities (driver, passenger, and pedestrian) for each province. For example, in British Columbia, 229 (85.8%) of all driver fatalities were tested for alcohol.

TABLE 2-4
ALCOHOL TESTS BY TYPE OF VICTIM: 1985

| <u>PROVINCE</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>TOTAL</u> |
|----------------------|---|---------------|------------------|-------------------|--------------|
| British Columbia | N | 229 | 99 | 55 | 383 |
| | % | 85.8 | 64.7 | 71.4 | 77.1 |
| Alberta | N | 265 | 85 | 36 | 386 |
| | % | 81.8 | 55.2 | 67.9 | 72.7 |
| Saskatchewan | N | 105 | 37 | 27 | 169 |
| | % | 83.3 | 57.8 | 65.9 | 73.2 |
| Manitoba | N | 57 | 15 | 17 | 89 |
| | % | 81.4 | 38.5 | 58.6 | 64.5 |
| Ontario | N | 573 | 87 | 137 | 797 |
| | % | 81.3 | 23.1 | 60.4 | 60.9 |
| New Brunswick | N | 56 | 16 | 15 | 87 |
| | % | 67.5 | 43.2 | 48.4 | 57.6 |
| Prince Edward Island | N | 14 | 6 | 11 | 31 |
| | % | 93.3 | 85.7 | 73.3 | 83.8 |
| Nova Scotia | N | 64 | 19 | 14 | 97 |
| | % | 65.3 | 42.2 | 50.0 | 56.7 |
| <hr/> | | | | | |
| TOTAL | N | 1363 | 364 | 312 | 2039 |
| | % | 80.7 | 41.6 | 62.3 | 66.5 |

Traffic Injury Research Foundation of Canada, 1986.

As indicated by Table 2-4, 80.7% of all driver fatalities in the seven provinces were tested for alcohol during 1985. The alcohol-test rate for driver fatalities ranged from 65% in Nova Scotia to 93% in Prince Edward Island. In general, passengers fatally injured in motor vehicle accidents are tested less often. British Columbia, Alberta, Saskatchewan, and Prince Edward Island had relatively high rates of alcohol testing for passengers. Tests for alcohol use among pedestrian fatalities were reported for about 62% of the 1985 cases; rates of testing ranged from 48% in New Brunswick to 73% in Prince Edward Island.

3.0 AN OVERVIEW OF FINDINGS

This section presents selected findings based on data from the entire set of case files compiled for calendar year 1985 (aggregate statistics for the eight provinces combined). As mentioned above, 1985 is the first year for which data from Nova Scotia were included in the Fatality Database. Although aggregate statistics with and without data from Nova Scotia differ only slightly, we have also included aggregate statistics for the seven provinces for which we have compiled data since 1974. The seven-province data offer indications of trends, and although inclusion of Nova Scotia makes only small differences, differences in certain statistics from year to year are also small. Thus, in presenting selected findings below, we discuss eight-province aggregate statistics when referring only to calendar year 1985 (Appendix J) and seven-province aggregate statistics when comparing data for 1985 with previous years (Appendix A). Similar data for each province are contained in Appendices B through I.

Table A-1 shows the distribution of fatalities by type of victim from 1979 through 1985. Over this seven-year period, the total number of motor vehicle fatalities dropped by 25% -- from 3935 in 1979 to 2945 in 1985. The number of fatalities included in the database increased slightly from 1984 (16 additional case files). For all practical purposes, the number of motor vehicle fatalities in the seven provinces has not changed since 1983. Although the total number of motor vehicle fatalities has decreased greatly since 1979, the percentages of drivers, passengers, and pedestrians have not changed substantially. In 1985, 54% of fatalities were drivers; 28% were passengers; and 16% were pedestrians (see Table J-1).

Table J-2 presents data on alcohol use among driver fatalities grouped by type of vehicle operated. Drivers of four categories of vehicles are included: automobile; truck or van; tractor-trailer; and motorcycle. For 1985, the total number of driver fatalities in each of the four groups is given along with the number and percentage of those tested for alcohol. In 1985, the rate of alcohol testing ranged from 75% for drivers of tractor-trailers to 84% for operators of motorcycles.

Two columns in Table J-2 summarize qualitative results of alcohol tests. The number of cases in which any amount of alcohol was detected is given under the heading "number had been drinking"; the percentage of cases with positive results is found in parentheses below that number. Similarly, the number and percentage of cases in which values of blood alcohol concentration exceeded the legal limit of 80 mg% are given under the heading "number >80 mg%". The remaining five columns show the number of driver fatalities in five blood alcohol concentration (BAC) categories: 0; 1-49; 50-80, 81-150, and greater than 150 mg%.

As might be expected, drivers of automobiles form the largest group of operator fatalities. Of those tested in 1985, about 50% had been drinking prior to crash involvement and about 42% had illegal BACs. About 64% (239/376) of drinking-driver fatalities in this group had BACs greater than 150 mg%.

Operators of trucks or vans and motorcycles were the next two largest groups of driver fatalities. For both groups, the percentage of those who had been drinking and those who had illegal BACs exceeded comparable figures for automobile drivers.

The smallest group of driver fatalities in Table J-2 includes operators of tractor-trailers. Compared to the three other groups, the percentage of these operators who had been drinking is lowest. Over 80% of this group of driver fatalities had a BAC of zero.

Table A-2 compares similar data based on seven-province statistics for 1985 with those for 1984. Most notable in this table are decreased percentages of drinking-driver fatalities in each group. Substantial reductions in driver fatalities with illegal BACs occurred among drivers of trucks or vans and motorcycles. For example, in 1984, over 50% of truck/van and motorcycle drivers had illegal BACs at the time of crash involvement. In 1985, these percentages dropped to 43.5% and 41.7%, respectively.

Similar in format to Tables J-2 and A-2, Table J-3 compares driver fatalities grouped according to age, gender, and collision type (single-vehicle accident [SVA] or multiple-vehicle [MVA]).

With respect to age in 1985, the youngest and oldest groups of driver fatalities (under 16 and over 55 years of age) are least likely to have been drinking and to have illegal BACs. From 16 through 25 years of age, the older the group of driver fatalities, the higher the percentage of drinking-driver fatalities. The highest percentage of driver fatalities with illegal BACs, however, is found in the 26-35 year-old group. These percentages decline gradually through the next two ten-year age groups.

In 1985, 82% of driver fatalities were male; 90% of drinking-driver fatalities were male; and 91% of drivers with illegal BACs were male. The majority (71%) of women who died as drivers had a BAC of zero.

Compared to drivers dying in multiple-vehicle accidents, drivers dying in single-vehicle accidents were more likely to have been drinking (69% versus 37%) and to have illegal BACs (58% versus 27%). These statistics reflect the facts (1) that not all drivers responsible for the occurrence of fatal motor vehicle accidents die or are tested for BAC; and (2) that the group of drivers dying in multiple-vehicle accidents includes a higher percentage of drivers not responsible for the crash in which they died. Past research has shown that responsibility for crash involvement is strongly related to alcohol use and BAC.

Table A-4 presents data on alcohol use in a subset of driver fatalities from 1973 through 1985. This group of driver fatalities includes operators of automobiles aged 16 years or older who died within six hours of crash involvement. Table A-4 shows the number of such driver fatalities occurring during each year in the seven provinces combined; the number tested for BAC; and the number and percentage of drivers who had been drinking (any positive BAC) and who had illegal BACs (over 80 mg%).

The number of driver fatalities in this group decreased to 695 in 1984 from 1213 in 1974, then increased to 745 in 1985. Large decreases in numbers of driver fatalities occurred from 1975 to 1976 and from 1981 to 1982. The decrease from 1983 to 1984 was 115, third largest in the series. The rate of testing for alcohol has ranged from 81% in 1980 to 90.6% in 1985.

From 1973 through 1982, the number -- but not the percentage -- of drinking-driver fatalities also decreased. Similarly, the number (not the percentage) of driver fatalities with illegal BACs decreased. In 1983, 1984, and again in 1985, slightly lower percentages of drinking-driver fatalities were found. Because the percentage of such fatalities is one indicator of the magnitude of impaired-driving problems, this finding may represent a positive trend downwards in the magnitude of the alcohol-(fatal)crash problem in Canada.

APPENDIX A

AGGREGATE STATISTICS

(Seven Provinces)

TABLE A-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(SEVEN PROVINCES)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|-----|---------------|------------------|-------------------|----------------|--------------|
| 1979 | N | 2047 | 1110 | 672 | 106 | 3935 |
| | (%) | (52.0) | (28.2) | (17.1) | (2.7) | |
| 1980 | N | 2009 | 1161 | 672 | 55 | 3897 |
| | (%) | (51.6) | (29.8) | (17.2) | (1.4) | |
| 1981 | N | 2040 | 1133 | 668 | 27 | 3868 |
| | (%) | (52.7) | (29.3) | (17.3) | (0.7) | |
| 1982 | N | 1725 | 857 | 507 | 15 | 3104 |
| | (%) | (55.6) | (27.6) | (16.3) | (0.5) | |
| 1983 | N | 1686 | 766 | 481 | 20 | 2953 |
| | (%) | (57.1) | (25.9) | (16.3) | (0.7) | |
| 1984 | N | 1645 | 770 | 499 | 15 | 2929 |
| | (%) | (56.2) | (26.3) | (17.0) | (0.5) | |
| 1985 | N | 1590 | 831 | 473 | 51 | 2945 |
| | (%) | (54.0) | (28.2) | (16.1) | (1.7) | |

Traffic Injury Research Foundation of Canada, 1986.

TABLE A-2

DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATALLY INJURED DRIVERS*
ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
(SEVEN PROVINCES)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER >80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|-----------------|-------------------------|------------------------------------|-------------------------------------|--------------------------|---|-----------|----------|-----------|------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | >150 |
| 1984 | AUTO | 846 | 678 (80.1) | 359 (52.9) | 289 (42.6) | 319 (47.1) | 44 (6.5) | 26 (3.8) | 75 (11.1) | 214 (31.6) |
| | | | | | | 112 (41.8) | 14 (5.2) | 5 (1.9) | 34 (12.7) | 103 (38.4) |
| | TRUCK-VAN | 335 | 268 (80.0) | 156 (58.2) | 137 (51.1) | 20 (74.1) | 0 (0.0) | 1 (3.7) | 3 (11.1) | 3 (11.1) |
| | TRACTOR-TRAILER | 38 | 27 (71.1) | 7 (25.9) | 6 (22.2) | 66 (35.1) | 12 (6.4) | 14 (7.4) | 48 (25.5) | 48 (25.5) |
| 1985 | AUTO | 851 | 711 (83.5) | 354 (49.9) | 294 (41.4) | 357 (50.2) | 40 (5.6) | 20 (2.8) | 69 (9.7) | 225 (31.6) |
| | | | | | | 122 (46.6) | 13 (5.0) | 13 (5.0) | 25 (9.5) | 89 (34.0) |
| | TRUCK-VAN | 309 | 262 (84.8) | 140 (53.4) | 114 (43.5) | 24 (82.8) | 1 (3.4) | 0 (0.0) | 0 (0.0) | 4 (13.8) |
| | TRACTOR-TRAILER | 39 | 29 (74.4) | 5 (17.2) | 4 (13.8) | 62 (38.0) | 20 (12.3) | 13 (8.0) | 29 (17.8) | 39 (23.9) |
| | MOTORCYCLE | 192 | 163 (84.9) | 101 (62.0) | 68 (41.7) | | | | | |
| | | | | | | | | | | |

* 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE A-3

DISTRIBUTION OF BAC AMONG FATALITY INJURED DRIVERS (ALL VEHICLES EXCEPT BICYCLES,
SNOWMOBILES, AND FARM TRACTORS) ACCORDING TO AGE, SEX, AND TYPE OF COLLISION, BY YEAR OF DEATH
(SEVEN PROVINCES)

| YEAR | CATEGORY | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER > 80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|----------|-------------------------------|--|--|---------------------------------|--|-------------|-------------|---------------|---------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | > 150 |
| 1985 | < 16 | 62 | 29 (46.8) | 2 (6.9) | 0 (0.0) | 27 (93.1) | 0 (0.0) | 2 (6.9) | 0 (0.0) | 0 (0.0) |
| | 16 - 17 | 73 | 60 (82.2) | 25 (41.7) | 17 (28.3) | 35 (58.3) | 4 (6.7) | 4 (6.7) | 7 (11.7) | 10 (16.7) |
| | 18 - 19 | 132 | 116 (87.9) | 65 (56.0) | 51 (44.0) | 51 (44.0) | 9 (7.8) | 5 (4.3) | 19 (16.4) | 32 (27.6) |
| | 20 - 25 | 408 | 354 (87.8) | 224 (63.3) | 169 (47.7) | 130 (36.7) | 32 (9.0) | 23 (6.5) | 48 (13.6) | 121 (34.2) |
| | 26 - 35 | 329 | 281 (85.4) | 165 (58.7) | 142 (50.5) | 116 (41.3) | 14 (5.0) | 9 (3.2) | 39 (13.9) | 103 (36.7) |
| | 36 - 45 | 207 | 172 (83.1) | 85 (49.4) | 73 (42.4) | 87 (50.6) | 10 (5.8) | 2 (1.2) | 8 (4.7) | 65 (37.8) |
| | 46 - 55 | 106 | 95 (89.6) | 29 (30.5) | 25 (26.3) | 66 (69.5) | 2 (2.1) | 2 (2.1) | 2 (2.1) | 23 (24.2) |
| | > 55 | 265 | 184 (69.4) | 54 (29.3) | 40 (21.7) | 130 (70.7) | 10 (5.4) | 4 (2.2) | 8 (4.3) | 32 (17.4) |
| | MALE | 1300 | 1060 (81.5) | 584 (55.1) | 467 (44.1) | 476 (44.9) | 72 (6.8) | 45 (4.2) | 113 (10.7) | 354 (33.4) |
| | FEMALE | 282 | 231 (81.9) | 65 (28.1) | 50 (21.6) | 166 (71.9) | 9 (3.9) | 6 (2.6) | 18 (7.8) | 32 (13.9) |
| | SVA | 638 | 550 (86.2) | 373 (67.8) | 316 (57.4) | 177 (32.2) | 32 (5.8) | 25 (4.5) | 70 (12.7) | 246 (44.7) |
| | MVA | 937 | 739 (78.9) | 274 (37.1) | 200 (27.1) | 465 (62.9) | 48 (6.5) | 26 (3.5) | 61 (8.3) | 139 (18.8) |
| | UNKNOWN | 7 | 2 (28.6) | 2 (100) | 1 (50.0) | 0 (0.0) | 1 (50.0) | 0 (0.0) | 0 (0.0) | 1 (50.0) |

TABLE A-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(SEVEN PROVINCES)

| <u>YEAR</u> | <u>NUMBER OF DRIVERS</u> | <u>NUMBER TESTED (% TESTED)</u> | <u>NUMBER AND PERCENT OF TESTED DRIVERS</u> | |
|-------------|------------------------------|-------------------------------------|---|--------------------------|
| | | | <u>HAD BEEN DRINKING</u> | <u>ABOVE LEGAL LIMIT</u> |
| 1973 | 1175 | 1033 (87.9) | 614 (59.4) | 517 (50.0) |
| 1974 | 1213 | 1060 (87.4) | 625 (59.0) | 504 (47.5) |
| 1975 | 1207 | 1082 (89.6) | 642 (59.3) | 508 (47.0) |
| 1976 | 950 | 806 (84.8) | 486 (60.3) | 387 (48.0) |
| 1977 | 881 | 737 (83.7) | 423 (57.4) | 348 (47.2) |
| 1978 | 868 | 750 (86.4) | 430 (57.3) | 357 (47.6) |
| 1979 | 918 | 774 (84.3) | 443 (57.2) | 370 (47.8) |
| 1980 | 893 | 726 (81.3) | 435 (59.9) | 358 (49.3) |
| 1981 | 968 | 835 (86.3) | 500 (59.9) | 423 (50.7) |
| 1982 | 809 | 681 (84.2) | 385 (56.5) | 321 (47.1) |
| 1983 | 810 | 725 (89.5) | 390 (53.8) | 323 (44.6) |
| 1984 | 695 | 620 (89.2) | 333 (53.7) | 267 (43.1) |
| 1985 | 745 | 675 (90.6) | 338 (50.1) | 280 (41.5) |

APPENDIX B

BRITISH COLUMBIA

TABLE B-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(BRITISH COLUMBIA)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|-----|---------------|------------------|-------------------|----------------|--------------|
| 1979 | N | 424 | 213 | 141 | 19 | 797 |
| | (%) | (53.2) | (26.7) | (17.7) | (2.4) | (100) |
| 1980 | N | 430 | 248 | 123 | 9 | 810 |
| | (%) | (53.1) | (30.6) | (15.2) | (1.1) | (100) |
| 1981 | N | 450 | 274 | 135 | 0 | 859 |
| | (%) | (52.4) | (31.9) | (15.7) | (0.0) | (100) |
| 1982 | N | 360 | 167 | 94 | 4 | 625 |
| | (%) | (57.6) | (26.7) | (15.0) | (0.6) | (100) |
| 1983 | N | 344 | 178 | 82 | 3 | 607 |
| | (%) | (56.7) | (29.3) | (13.5) | (0.5) | (100) |
| 1984 | N | 293 | 145 | 97 | 4 | 539 |
| | (%) | (54.4) | (26.9) | (18.0) | (0.7) | (100) |
| 1985 | N | 267 | 153 | 77 | 5 | 502 |
| | (%) | (53.2) | (30.5) | (15.3) | (1.0) | (100) |

Traffic Injury Research Foundation of Canada, 1986.

TABLE B-2

DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATAALLY INJURED DRIVERS*
ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
(BRITISH COLUMBIA)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER > 80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|-----------------|-------------------------|------------------------------------|-------------------------------------|---------------------------|---|----------|----------|-----------|-----------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | >150 |
| 1984 | AUTO | 154 | 123 (79.9) | 72 (58.5) | 59 (48.0) | 51 (41.5) | 9 (7.3) | 4 (3.3) | 20 (16.3) | 39 (31.7) |
| | TRUCK-VAN | 66 | 47 (71.2) | 30 (63.8) | 28 (59.6) | 17 (36.2) | 0 (0.0) | 2 (4.3) | 7 (14.9) | 21 (44.7) |
| | TRACTOR-TRAILER | 10 | 4 (40.0) | 0 (0.0) | 0 (0.0) | 4 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | MOTORCYCLE | 40 | 34 (85.0) | 23 (67.6) | 20 (58.8) | 11 (32.4) | 1 (2.9) | 2 (5.9) | 10 (29.4) | 10 (29.4) |
| | | | | | | | | | | |
| 1985 | AUTO | 135 | 117 (86.7) | 56 (47.9) | 49 (41.9) | 61 (52.1) | 6 (5.1) | 1 (0.9) | 12 (10.3) | 37 (31.6) |
| | TRUCK-VAN | 49 | 46 (93.9) | 27 (58.7) | 21 (45.7) | 19 (41.3) | 1 (2.2) | 5 (10.9) | 2 (4.3) | 19 (41.3) |
| | TRACTOR-TRAILER | 9 | 6 (66.7) | 2 (33.3) | 1 (16.7) | 4 (66.7) | 1 (16.7) | 0 (0.0) | 0 (0.0) | 1 (16.7) |
| | MOTORCYCLE | 35 | 30 (85.7) | 19 (63.3) | 12 (40.0) | 11 (36.7) | 3 (10.0) | 4 (13.3) | 6 (20.0) | 6 (20.0) |

* 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE B-3

DISTRIBUTION OF BAC AMONG FATALLY INJURED DRIVERS (ALL VEHICLES EXCEPT BICYCLES, SNOWMOBILES, AND FARM TRACTORS) ACCORDING TO AGE, SEX, AND TYPE OF COLLISION, BY YEAR OF DEATH (BRITISH COLUMBIA).

| YEAR | CATEGORY | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER >80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|----------|-------------------------------|--|--|--------------------------------|--|-------------|-------------|--------------|--------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | >150 |
| 1985 | < 16 | 10 | 5 (50.0) | 1 (20.0) | 0 (0.0) | 4 (80.0) | 0 (0.0) | 1 (20.0) | 0 (0.0) | 0 (0.0) |
| | 16 - 17 | 10 | 9 (90.0) | 6 (66.7) | 5 (55.6) | 3 (33.3) | 0 (0.0) | 1 (11.1) | 2 (22.2) | 3 (33.3) |
| | 18 - 19 | 20 | 20 (100) | 8 (40.0) | 5 (25.0) | 12 (60.0) | 1 (5.0) | 2 (10.0) | 4 (20.0) | 1 (5.0) |
| | 20 - 25 | 59 | 56 (94.9) | 36 (64.3) | 29 (51.8) | 20 (35.7) | 3 (5.4) | 4 (7.1) | 6 (10.7) | 23 (41.1) |
| | 26 - 35 | 68 | 58 (85.3) | 33 (56.9) | 27 (46.6) | 25 (43.1) | 4 (6.9) | 2 (3.4) | 9 (15.5) | 18 (31.0) |
| | 36 - 45 | 38 | 31 (81.6) | 16 (51.6) | 12 (38.7) | 15 (48.4) | 4 (12.9) | 0 (0.0) | 1 (3.2) | 11 (35.5) |
| | 46 - 55 | 21 | 18 (85.7) | 6 (33.3) | 6 (33.3) | 12 (66.7) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 6 (33.3) |
| | > 55 | 40 | 31 (77.5) | 7 (22.6) | 6 (19.4) | 24 (77.4) | 0 (0.0) | 1 (3.2) | 0 (0.0) | 6 (19.4) |
| | MALE | 228 | 198 (86.8) | 105 (53.0) | 83 (41.9) | 93 (47.0) | 11 (5.6) | 11 (5.6) | 20 (10.1) | 63 (31.8) |
| | FEMALE | 38 | 30 (78.9) | 8 (26.7) | 7 (23.3) | 22 (73.3) | 1 (3.3) | 0 (0.0) | 2 (6.7) | 5 (16.7) |
| | SVA | 131 | 117 (89.3) | 76 (65.0) | 64 (54.7) | 41 (35.0) | 7 (6.0) | 5 (4.3) | 10 (8.5) | 54 (46.2) |
| | MVA | 134 | 110 (82.1) | 36 (32.7) | 26 (23.6) | 74 (67.3) | 4 (3.6) | 6 (5.5) | 12 (10.9) | 14 (12.7) |
| | UNKNOWN | 1 | 1 (100) | 1 (100) | 0 (0.0) | 0 (0.0) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) |

TABLE B-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(BRITISH COLUMBIA)

| <u>YEAR</u> | <u>NUMBER OF DRIVERS</u> | <u>NUMBER TESTED (% TESTED)</u> | <u>NUMBER AND PERCENT OF TESTED DRIVERS</u> | |
|-------------|------------------------------|-------------------------------------|---|--------------------------|
| | | | <u>HAD BEEN DRINKING</u> | <u>ABOVE LEGAL LIMIT</u> |
| 1973 | 194 | 172 (88.7) | 99 (57.6) | 81 (47.1) |
| 1974 | 252 | 207 (82.1) | 121 (58.5) | 104 (50.2) |
| 1975 | 207 | 172 (83.1) | 115 (66.9) | 102 (59.3) |
| 1976 | 174 | 145 (83.3) | 90 (62.1) | 79 (54.5) |
| 1977 | 149 | 113 (75.8) | 68 (60.2) | 62 (54.9) |
| 1978 | 113 | 89 (78.8) | 65 (73.0) | 55 (61.8) |
| 1979 | 136 | 101 (74.3) | 59 (58.4) | 54 (53.5) |
| 1980 | 148 | 90 (60.8) | 57 (63.3) | 46 (51.1) |
| 1981 | 193 | 152 (78.8) | 104 (68.4) | 93 (61.2) |
| 1982 | 164 | 135 (82.3) | 83 (61.5) | 73 (54.1) |
| 1983 | 136 | 113 (83.1) | 80 (70.8) | 73 (64.6) |
| 1984 | 117 | 108 (92.3) | 66 (61.1) | 53 (49.1) |
| 1985 | 115 | 108 (93.9) | 52 (48.1) | 45 (41.7) |

APPENDIX C

ALBERTA

TABLE C-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(ALBERTA)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|-----|---------------|------------------|-------------------|----------------|--------------|
| 1979 | N | 383 | 222 | 76 | 63 | 744 |
| | (%) | (51.5) | (29.8) | (10.2) | (8.5) | (100) |
| 1980 | N | 365 | 215 | 84 | 27 | 691 |
| | (%) | (52.8) | (31.1) | (12.2) | (3.9) | (100) |
| 1981 | N | 370 | 244 | 106 | 11 | 731 |
| | (%) | (50.6) | (33.4) | (14.5) | (1.5) | (100) |
| 1982 | N | 315 | 152 | 75 | 3 | 545 |
| | (%) | (57.8) | (27.9) | (13.8) | (0.6) | (100) |
| 1983 | N | 262 | 123 | 60 | 2 | 447 |
| | (%) | (58.6) | (27.5) | (13.4) | (0.4) | (100) |
| 1984 | N | 294 | 143 | 56 | 4 | 497 |
| | (%) | (59.2) | (28.8) | (11.3) | (0.8) | (100) |
| 1985 | N | 324 | 154 | 53 | 23 | 554 |
| | (%) | (58.5) | (27.8) | (9.6) | (4.2) | (100) |

Traffic Injury Research Foundation of Canada, 1986.

TABLE C-2

DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATALLY INJURED DRIVERS^{*}
ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
(ALBERTA)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER >80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|-----------------|-------------------------|---------------------------------------|--|-----------------------------|--|-------------|-------------|-------------|--------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | >150 |
| 1984 | AUTO | 152 | 115 (75.7) | 65 (56.5) | 49 (42.6) | 50 (43.5) | 9 (7.8) | 7 (6.1) | 9 (7.8) | 40 (34.8) |
| | TRUCK-VAN | 94 | 72 (76.6) | 37 (51.4) | 29 (40.3) | 35 (48.6) | 7 (9.7) | 1 (1.4) | 6 (8.3) | 23 (31.9) |
| | TRACTOR-TRAILER | 9 | 8 (88.9) | 4 (50.0) | 3 (37.5) | 4 (50.0) | 0 (0.0) | 1 (12.5) | 0 (0.0) | 3 (37.5) |
| | MOTORCYCLE | 20 | 17 (85.0) | 12 (70.6) | 9 (52.9) | 5 (29.4) | 2 (11.8) | 1 (5.9) | 2 (11.8) | 7 (41.2) |
| | | | | | | | | | | |
| 1985 | AUTO | 162 | 133 (82.1) | 59 (44.4) | 54 (40.6) | 74 (55.6) | 4 (3.0) | 1 (0.8) | 10 (7.5) | 44 (33.1) |
| | TRUCK-VAN | 110 | 90 (81.8) | 48 (53.3) | 41 (45.6) | 42 (46.7) | 6 (6.7) | 1 (1.1) | 9 (10.0) | 32 (35.6) |
| | TRACTOR-TRAILER | 6 | 4 (66.7) | 0 (0.0) | 0 (0.0) | 4 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | MOTORCYCLE | 26 | 21 (80.8) | 16 (76.2) | 10 (47.6) | 5 (23.8) | 2 (9.5) | 4 (19.0) | 5 (23.8) | 5 (23.8) |

^{*} 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE C-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(ALBERTA)

| <u>YEAR</u> | <u>NUMBER OF DRIVERS</u> | <u>NUMBER TESTED (% TESTED)</u> | <u>NUMBER AND PERCENT OF TESTED DRIVERS</u> | |
|-------------|------------------------------|-------------------------------------|---|--------------------------|
| | | | <u>HAD BEEN DRINKING</u> | <u>ABOVE LEGAL LIMIT</u> |
| 1973 | 155 | 129 (83.2) | 87 (67.4) | 75 (58.1) |
| 1974 | 155 | 142 (91.6) | 84 (59.2) | 67 (47.2) |
| 1975 | 153 | 147 (96.1) | 91 (61.9) | 70 (47.6) |
| 1976 | 125 | 118 (94.4) | 60 (50.9) | 44 (37.3) |
| 1977 | 124 | 111 (89.5) | 61 (55.0) | 47 (42.3) |
| 1978 | 147 | 129 (87.8) | 70 (54.3) | 51 (39.5) |
| 1979 | 172 | 145 (84.3) | 59 (40.7) | 52 (35.9) |
| 1980 | 140 | 90 (64.3) | 58 (64.4) | 49 (54.4) |
| 1981 | 159 | 125 (78.6) | 70 (56.0) | 58 (46.4) |
| 1982 | 116 | 79 (68.1) | 50 (63.3) | 34 (43.0) |
| 1983 | 114 | 102 (89.5) | 53 (52.0) | 43 (42.2) |
| 1984 | 115 | 97 (84.3) | 57 (58.8) | 43 (44.3) |
| 1985 | 147 | 126 (85.7) | 58 (46.0) | 53 (42.1) |

APPENDIX D

SASKATCHEWAN

TABLE D-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(SASKATCHEWAN)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|-----|---------------|------------------|-------------------|----------------|--------------|
| 1979 | N | 157 | 95 | 40 | 5 | 297 |
| | (%) | (52.9) | (32.0) | (13.5) | (1.7) | (100) |
| 1980 | N | 137 | 111 | 40 | 2 | 290 |
| | (%) | (47.2) | (38.3) | (13.8) | (0.7) | (100) |
| 1981 | N | 153 | 78 | 39 | 7 | 277 |
| | (%) | (55.2) | (28.2) | (14.1) | (2.5) | (100) |
| 1982 | N | 139 | 83 | 28 | 2 | 252 |
| | (%) | (55.2) | (32.9) | (11.1) | (0.8) | (100) |
| 1983 | N | 140 | 65 | 33 | 13 | 251 |
| | (%) | (55.8) | (25.9) | (13.1) | (5.2) | (100) |
| 1984 | N | 126 | 66 | 44 | 5 | 241 |
| | (%) | (52.3) | (27.4) | (18.3) | (2.1) | (100) |
| 1985 | N | 126 | 64 | 41 | 12 | 243 |
| | (%) | (51.9) | (26.3) | (16.9) | (4.9) | (100) |

Traffic Injury Research Foundation of Canada, 1986.

TABLE D-2

DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATALLY INJURED DRIVERS*
 ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
 (SASKATCHEWAN)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER > 80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|-----------------|-------------------------|---------------------------------------|--|---------------------------------|--|-------------|-------------|-------------|--------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | > 150 |
| 1984 | AUTO | 45 | 38 (84.4) | 23 (60.5) | 18 (47.4) | 15 (39.5) | 4 (10.5) | 1 (2.6) | 4 (10.5) | 14 (36.8) |
| | | | | | | 16 (40.0) | 4 (10.0) | 1 (2.5) | 6 (15.0) | 13 (32.5) |
| | TRUCK-VAN | 49 | 40 (81.6) | 24 (60.0) | 19 (47.5) | 3 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | TRACTOR-TRAILER | 4 | 3 (75.0) | 0 (0.0) | 0 (0.0) | 5 (50.0) | 0 (0.0) | 1 (10.0) | 3 (30.0) | 1 (10.0) |
| 1985 | AUTO | 51 | 41 (80.4) | 24 (58.5) | 18 (43.9) | 17 (41.5) | 3 (7.3) | 3 (7.3) | 3 (7.3) | 15 (36.6) |
| | | | | | | 15 (50.0) | 2 (6.7) | 1 (3.3) | 4 (13.3) | 8 (26.7) |
| | TRUCK-VAN | 33 | 30 (90.9) | 15 (50.0) | 12 (40.0) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | TRACTOR-TRAILER | 3 | 1 (33.3) | 0 (0.0) | 0 (0.0) | 3 (50.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 3 (50.0) |
| 1986 | MOTORCYCLE | 7 | 6 (85.7) | 3 (50.0) | 3 (50.0) | 3 (50.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | | | | | | 3 (50.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |

* 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE D-3

DISTRIBUTION OF BAC AMONG FATALLY INJURED DRIVERS (ALL VEHICLES EXCEPT BICYCLES,
SNOWMOBILES, AND FARM TRACTORS) ACCORDING TO AGE, SEX, AND TYPE OF COLLISION, BY YEAR OF DEATH
(SASKATCHEWAN)

| YEAR | CATEGORY | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER >80mg% (% TESTED) | NUMBER OF DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|----------|-------------------------------|--|--|--------------------------------|---|-------------|-------------|-------------|--------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | >150 |
| 1985 | < 16 | 7 | 4 (57.1) | 0 (0.0) | 0 (0.0) | 4 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | 16 - 17 | 6 | 4 (66.7) | 2 (50.0) | 0 (0.0) | 2 (50.0) | 1 (25.0) | 1 (25.0) | 0 (0.0) | 0 (0.0) |
| | 18 - 19 | 10 | 9 (90.0) | 7 (77.8) | 6 (66.7) | 2 (22.2) | 1 (11.1) | 0 (0.0) | 2 (22.2) | 4 (44.4) |
| | 20 - 25 | 27 | 25 (92.6) | 16 (64.0) | 11 (44.0) | 9 (36.0) | 2 (8.0) | 3 (12.0) | 1 (4.0) | 10 (40.0) |
| | 26 - 35 | 30 | 28 (93.3) | 19 (67.9) | 15 (53.6) | 9 (32.1) | 3 (10.7) | 1 (3.6) | 4 (14.3) | 11 (39.3) |
| | 36 - 45 | 10 | 9 (90.0) | 5 (55.6) | 5 (55.6) | 4 (44.4) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 5 (55.6) |
| | 46 - 55 | 10 | 9 (90.0) | 4 (44.4) | 4 (44.4) | 5 (55.6) | 0 (0.0) | 0 (0.0) | 1 (11.1) | 3 (33.3) |
| | > 55 | 26 | 17 (65.4) | 3 (17.6) | 2 (11.8) | 14 (82.4) | 1 (5.9) | 0 (0.0) | 0 (0.0) | 2 (11.8) |
| | MALE | 101 | 82 (81.2) | 49 (59.8) | 39 (47.6) | 33 (40.2) | 7 (8.5) | 3 (3.7) | 6 (7.3) | 33 (40.2) |
| | FEMALE | 25 | 23 (92.0) | 7 (30.4) | 4 (17.4) | 16 (69.6) | 1 (4.3) | 2 (8.7) | 2 (8.7) | 2 (8.7) |
| | SVA | 69 | 61 (88.4) | 41 (67.2) | 35 (57.4) | 20 (32.8) | 4 (6.6) | 2 (3.3) | 6 (9.8) | 29 (47.5) |
| | MVA | 57 | 44 (77.2) | 15 (34.1) | 8 (18.2) | 29 (55.9) | 4 (9.1) | 3 (6.8) | 2 (4.5) | 6 (13.6) |

TABLE D-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(SASKATCHEWAN)

| YEAR | NUMBER OF DRIVERS | NUMBER TESTED (% TESTED) | NUMBER AND PERCENT OF TESTED DRIVERS | |
|------|----------------------|-----------------------------|--------------------------------------|-------------------|
| | | | HAD BEEN DRINKING | ABOVE LEGAL LIMIT |
| 1973 | 71 | 49 (69.0) | 36 (73.5) | 31 (63.3) |
| 1974 | 81 | 65 (80.3) | 44 (67.7) | 37 (56.9) |
| 1975 | 100 | 82 (82.0) | 35 (42.7) | 26 (31.7) |
| 1976 | 53 | 33 (62.3) | 23 (69.7) | 20 (60.6) |
| 1977 | 56 | 42 (75.0) | 25 (59.5) | 21 (50.0) |
| 1978 | 62 | 38 (61.3) | 19 (50.0) | 16 (42.1) |
| 1979 | 67 | 50 (74.6) | 28 (56.0) | 18 (36.0) |
| 1980 | 51 | 47 (92.2) | 28 (59.6) | 22 (46.8) |
| 1981 | 62 | 50 (80.6) | 25 (50.0) | 23 (46.0) |
| 1982 | 64 | 56 (87.5) | 25 (44.6) | 22 (39.3) |
| 1983 | 66 | 58 (87.9) | 24 (41.4) | 17 (29.3) |
| 1984 | 42 | 37 (88.1) | 22 (59.5) | 18 (48.6) |
| 1985 | 42 | 40 (95.2) | 24 (60.0) | 18 (45.0) |

APPENDIX E

MANITOBA

TABLE E-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(MANITOBA)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|-----|---------------|------------------|-------------------|----------------|--------------|
| 1979 | N | 100 | 53 | 39 | 1 | 193 |
| | (%) | (51.8) | (27.5) | (20.2) | (0.5) | (100) |
| 1980 | N | 91 | 57 | 39 | 2 | 189 |
| | (%) | (48.1) | (30.2) | (20.6) | (1.1) | (100) |
| 1981 | N | 107 | 58 | 49 | 0 | 214 |
| | (%) | (50.0) | (27.1) | (22.9) | (0.0) | (100) |
| 1982 | N | 80 | 55 | 32 | 0 | 167 |
| | (%) | (47.9) | (32.9) | (19.2) | (0.0) | (100) |
| 1983 | N | 77 | 27 | 42 | 0 | 146 |
| | (%) | (52.7) | (18.5) | (28.8) | (0.0) | (100) |
| 1984 | N | 79 | 45 | 24 | 1 | 149 |
| | (%) | (53.0) | (30.2) | (16.1) | (0.7) | (100) |
| 1985 | N | 70 | 39 | 29 | 3 | 141 |
| | (%) | (49.6) | (27.7) | (20.6) | (2.1) | (100) |

Traffic Injury Research Foundation of Canada, 1986.

TABLE E-2
DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATALLY INJURED DRIVERS*
ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
(MANITOBA)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER > 80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION | | | | | NUMBER OF | | | | |
|------|-----------------|-------------------------|---------------------------------------|--|---------------------------------|--|------------------------|-------------|-------------|--------------|-----------|---------------|---------|----------|-------|
| | | | | | | ZERO | (% OF NUMBER TESTED) | | | | 50 - 80 | CONCENTRATION | | | |
| | | | | | | | 1 - 49 | 50 - 80 | 81 - 150 | > 150 | | 1 - 49 | 50 - 80 | 81 - 150 | > 150 |
| 1984 | AUTO | 27 | 24 (88.9) | 10 (41.7) | 7 (29.2) | 14 (58.3) | 2 (8.3) | 1 (4.2) | 1 (4.2) | 6 (25.0) | | | | | |
| | | | | | | 9 (40.9) | 1 (4.5) | 0 (0.0) | 2 (9.1) | 10 (45.5) | | | | | |
| | TRUCK-VAN | 24 | 22 (91.7) | 13 (59.1) | 12 (54.5) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 2 (100) | 0 (0.0) | | | | | |
| | TRACTOR-TRAILER | 4 | 2 (50.0) | 2 (100) | 2 (100) | 4 (50.0) | 1 (12.5) | 1 (25.0) | 2 (50.0) | 0 (0.0) | | | | | |
| 1985 | AUTO | 33 | 25 (75.8) | 12 (48.0) | 11 (44.0) | 13 (52.0) | 1 (4.0) | 0 (0.0) | 1 (4.0) | 10 (40.0) | | | | | |
| | | | | | | 7 (41.2) | 2 (11.8) | 1 (5.9) | 3 (17.6) | 4 (23.5) | | | | | |
| | TRUCK-VAN | 19 | 17 (89.5) | 10 (58.8) | 7 (41.2) | 2 (66.7) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (33.3) | | | | | |
| | TRACTOR-TRAILER | 5 | 3 (60.0) | 1 (33.3) | 1 (33.3) | 4 (44.4) | 2 (22.2) | 1 (11.1) | 0 (0.0) | 2 (22.2) | | | | | |
| | MOTORCYCLE | 10 | 9 (90.0) | 5 (55.6) | 2 (22.2) | | | | | | | | | | |

* 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE E--

DISTRIBUTION OF BAC AMONG FATALLY INJURED DRIVERS (ALL VEHICLES EXCEPT BICYCLES,
SNOWMOBILES, AND FARM TRACTORS) ACCORDING TO AGE, SEX, AND TYPE OF COLLISION, BY YEAR OF DEATH
(MANITOBA)

| YEAR | CATEGORY | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER > 80mg% (% TESTED) | NUMBER OF DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|-------|----------|-------------------------------|--|--|---------------------------------|---|-------------|-------------|-------------|--------------|
| | | | | | | ZERO | 1 - 49 | | | |
| | | | | | | | 1 - 49 | 50 - 80 | 81 - 150 | >150 |
| 1985 | < 16 | 1 | 1 (100) | 0 (0.0) | 0 (0.0) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | 16 - 17 | 7 | 6 (85.7) | 4 (66.7) | 4 (66.7) | 2 (33.3) | 0 (0.0) | 0 (0.0) | 1 (16.7) | 3 (50.0) |
| | 18 - 19 | 8 | 8 (100) | 5 (62.5) | 5 (62.5) | 3 (37.5) | 0 (0.0) | 0 (0.0) | 1 (12.5) | 4 (50.0) |
| | 20 - 25 | 24 | 18 (75.0) | 10 (55.6) | 5 (27.8) | 8 (44.4) | 4 (22.2) | 1 (5.6) | 1 (5.6) | 4 (22.2) |
| | 26 - 35 | 7 | 6 (85.7) | 4 (66.7) | 2 (33.3) | 2 (33.3) | 1 (16.7) | 1 (16.7) | 0 (0.0) | 2 (33.3) |
| | 36 - 45 | 9 | 7 (77.8) | 3 (42.9) | 3 (42.9) | 4 (57.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 3 (42.9) |
| | 46 - 55 | 3 | 3 (100) | 1 (33.3) | 1 (33.3) | 2 (66.7) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (33.3) |
| | > 55 | 11 | 8 (72.7) | 2 (25.0) | 2 (25.0) | 6 (75.0) | 0 (0.0) | 0 (0.0) | 1 (12.5) | 1 (12.5) |
| <hr/> | | | | | | | | | | |
| | MALE | 62 | 49 (79.0) | 28 (57.1) | 21 (42.9) | 21 (42.9) | 5 (10.2) | 2 (4.1) | 3 (6.1) | 18 (36.7) |
| | FEMALE | 8 | 8 (100) | 1 (12.5) | 1 (12.5) | 7 (87.5) | 0 (0.0) | 0 (0.0) | 1 (12.5) | 0 (0.0) |
| <hr/> | | | | | | | | | | |
| | SVA | 31 | 27 (87.1) | 19 (70.4) | 15 (55.6) | 8 (29.6) | 2 (7.4) | 2 (7.4) | 3 (11.1) | 12 (44.4) |
| | MVA | 38 | 29 (76.3) | 9 (31.0) | 6 (20.7) | 20 (69.0) | 3 (10.3) | 0 (0.0) | 1 (3.4) | 5 (17.2) |
| | UNKNOWN | 1 | 1 (100) | 1 (100) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (100) |

TABLE E-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(MANITOBA)

| YEAR | NUMBER OF DRIVERS | NUMBER TESTED (% TESTED) | NUMBER AND PERCENT OF TESTED DRIVERS | |
|------|----------------------|-----------------------------|--------------------------------------|--------------------------|
| | | | <u>HAD BEEN DRINKING</u> | <u>ABOVE LEGAL LIMIT</u> |
| 1973 | 69 | 51 (73.9) | 39 (76.5) | 34 (66.7) |
| 1974 | 67 | 59 (88.1) | 34 (57.6) | 26 (44.1) |
| 1975 | 50 | 46 (92.0) | 31 (67.4) | 25 (54.4) |
| 1976 | 69 | 64 (92.8) | 46 (71.9) | 35 (54.7) |
| 1977 | 41 | 29 (70.7) | 21 (72.4) | 14 (48.3) |
| 1978 | 51 | 39 (76.5) | 21 (53.9) | 20 (51.3) |
| 1979 | 55 | 48 (87.3) | 26 (54.2) | 19 (39.6) |
| 1980 | 35 | 32 (91.4) | 20 (62.5) | 16 (50.0) |
| 1981 | 46 | 42 (91.3) | 19 (45.2) | 15 (35.7) |
| 1982 | 26 | 24 (92.3) | 16 (66.7) | 15 (62.5) |
| 1983 | 36 | 35 (97.2) | 21 (60.0) | 13 (37.1) |
| 1984 | 23 | 23 (100) | 10 (43.5) | 7 (30.4) |
| 1985 | 27 | 22 (81.5) | 10 (45.5) | 9 (40.9) |

APPENDIX F

ONTARIO

TABLE F-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(ONTARIO)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|----------|---------------|------------------|-------------------|----------------|---------------|
| 1979 | N (%) | 821 (51.4) | 441 (27.6) | 323 (20.2) | 13 (0.8) | 1598 (100) |
| 1980 | N (%) | 852 (51.8) | 444 (27.0) | 333 (20.3) | 15 (0.9) | 1644 (100) |
| 1981 | N (%) | 851 (54.3) | 419 (26.7) | 291 (18.6) | 7 (0.4) | 1568 (100) |
| 1982 | N (%) | 714 (55.7) | 334 (26.1) | 229 (17.9) | 4 (0.3) | 1281 (100) |
| 1983 | N (%) | 759 (56.7) | 337 (25.2) | 240 (17.9) | 2 (0.1) | 1338 (100) |
| 1984 | N (%) | 730 (56.2) | 322 (24.8) | 246 (19.0) | 0 (0.0) | 1298 (100) |
| 1985 | N (%) | 705 (53.6) | 377 (28.6) | 227 (17.2) | 7 (0.5) | 1316 (100) |

Traffic Injury Research Foundation of Canada, 1986.

TABLE F-2

DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATALLY INJURED DRIVERS^{*}
ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
(ONTARIO)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER >80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|-----------------|-------------------------|---------------------------------------|--|--------------------------------|--|--------------|-------------|--------------|---------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | > 150 |
| 1984 | AUTO | 402 | 329 (81.8) | 160 (48.6) | 131 (39.8) | 169 (51.4) | 18 (5.5) | 11 (3.3) | 35 (10.6) | 96 (29.2) |
| | | | | | | | | | | |
| | TRUCK-VAN | 82 | 72 (87.8) | 45 (62.5) | 42 (58.3) | 27 (37.5) | 2 (2.8) | 1 (1.4) | 12 (16.7) | 30 (41.7) |
| | | | | | | | | | | |
| | TRACTOR-TRAILER | 9 | 8 (88.9) | 1 (12.5) | 1 (12.5) | 7 (87.5) | 0 (0.0) | 0 (0.0) | 1 (12.5) | 0 (0.0) |
| | | | | | | | | | | |
| 1985 | AUTO | 416 | 353 (84.9) | 182 (51.6) | 143 (40.5) | 171 (48.4) | 26 (7.4) | 13 (3.7) | 39 (11.0) | 104 (29.5) |
| | | | | | | | | | | |
| | TRUCK-VAN | 90 | 75 (83.3) | 38 (50.7) | 31 (41.3) | 37 (49.3) | 2 (2.7) | 5 (6.7) | 6 (8.0) | 25 (33.3) |
| | | | | | | | | | | |
| | TRACTOR-TRAILER | 12 | 11 (91.7) | 1 (9.1) | 1 (9.1) | 10 (90.9) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (9.1) |
| | | | | | | | | | | |
| | MOTORCYCLE | 102 | 87 (85.3) | 51 (58.6) | 35 (40.2) | 36 (41.4) | 12 (13.8) | 4 (4.6) | 15 (17.2) | 20 (23.0) |
| | | | | | | | | | | |

^{*} 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE F-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(ONTARIO)

| <u>YEAR</u> | <u>NUMBER OF DRIVERS</u> | <u>NUMBER TESTED (% TESTED)</u> | <u>NUMBER AND PERCENT OF TESTED DRIVERS</u> | |
|-------------|------------------------------|-------------------------------------|---|--------------------------|
| | | | <u>HAD BEEN DRINKING</u> | <u>ABOVE LEGAL LIMIT</u> |
| 1973 | 604 | 568 (94.0) | 310 (54.6) | 257 (45.3) |
| 1974 | 577 | 525 (91.0) | 302 (57.5) | 236 (45.0) |
| 1975 | 620 | 574 (92.6) | 334 (58.2) | 256 (44.6) |
| 1976 | 457 | 401 (87.8) | 239 (59.6) | 186 (46.4) |
| 1977 | 444 | 395 (89.0) | 214 (54.2) | 172 (43.5) |
| 1978 | 424 | 403 (95.1) | 222 (55.1) | 187 (46.4) |
| 1979 | 426 | 384 (90.1) | 237 (61.7) | 198 (51.6) |
| 1980 | 453 | 419 (92.5) | 244 (58.2) | 206 (49.2) |
| 1981 | 460 | 432 (93.9) | 252 (58.3) | 208 (48.1) |
| 1982 | 384 | 357 (93.0) | 189 (52.9) | 159 (44.5) |
| 1983 | 398 | 370 (93.0) | 183 (49.5) | 152 (41.1) |
| 1984 | 337 | 309 (91.7) | 150 (48.5) | 122 (39.5) |
| 1985 | 363 | 338 (93.1) | 174 (51.5) | 137 (40.5) |

APPENDIX G

NEW BRUNSWICK

TABLE G-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(NEW BRUNSWICK)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|-----|---------------|------------------|-------------------|----------------|--------------|
| 1979 | N | 145 | 79 | 44 | 5 | 273 |
| | (%) | (53.1) | (28.9) | (16.1) | (1.8) | (100) |
| 1980 | N | 120 | 74 | 44 | 0 | 238 |
| | (%) | (50.4) | (31.1) | (18.5) | (0.0) | (100) |
| 1981 | N | 103 | 51 | 42 | 2 | 198 |
| | (%) | (52.0) | (25.8) | (21.2) | (1.0) | (100) |
| 1982 | N | 112 | 63 | 41 | 2 | 218 |
| | (%) | (51.4) | (28.9) | (18.8) | (0.9) | (100) |
| 1983 | N | 81 | 32 | 20 | 0 | 133 |
| | (%) | (60.9) | (24.1) | (15.0) | (0.0) | (100) |
| 1984 | N | 102 | 45 | 27 | 0 | 174 |
| | (%) | (58.6) | (25.9) | (15.5) | (0.0) | (100) |
| 1985 | N | 83 | 37 | 31 | 1 | 152 |
| | (%) | (54.6) | (24.3) | (20.4) | (0.7) | (100) |

Traffic Injury Research Foundation of Canada, 1986.

TABLE C-2

DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATALY INJURED DRIVERS^a
 ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
 (NEW BRUNSWICK)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER >80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|-----------------|-------------------------|------------------------------------|-------------------------------------|--------------------------|---|----------|---------|----------|-----------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | >150 |
| 1984 | AUTO | 54 | 39 (72.2) | 22 (56.4) | 19 (48.7) | 17 (43.6) | 1 (2.6) | 2 (5.1) | 6 (15.4) | 13 (33.3) |
| | TRUCK-VAN | 14 | 9 (64.3) | 4 (44.4) | 4 (44.4) | 5 (55.6) | 0 (0.0) | 0 (0.0) | 1 (11.1) | 3 (33.3) |
| | TRACTOR-TRAILER | 2 | 2 (100) | 0 (0.0) | 0 (0.0) | 2 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | MOTORCYCLE | 15 | 10 (66.7) | 3 (30.0) | 2 (20.0) | 7 (70.0) | 1 (10.0) | 0 (0.0) | 2 (20.0) | 0 (0.0) |
| | | | | | | | | | | |
| 1985 | AUTO | 46 | 35 (76.1) | 18 (51.4) | 16 (45.7) | 17 (48.6) | 0 (0.0) | 2 (5.7) | 4 (11.4) | 12 (34.3) |
| | TRUCK-VAN | 8 | 4 (50.0) | 2 (50.0) | 2 (50.0) | 2 (50.0) | 0 (0.0) | 0 (0.0) | 1 (25.0) | 1 (25.0) |
| | TRACTOR-TRAILER | 3 | 3 (100) | 0 (0.0) | 0 (0.0) | 3 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | MOTORCYCLE | 8 | 6 (75.0) | 4 (66.7) | 4 (66.7) | 2 (33.3) | 0 (0.0) | 0 (0.0) | 3 (50.0) | 1 (16.7) |
| | | | | | | | | | | |

^a 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE G-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(NEW BRUNSWICK)

| <u>YEAR</u> | <u>NUMBER OF DRIVERS</u> | <u>NUMBER TESTED (% TESTED)</u> | <u>NUMBER AND PERCENT OF TESTED DRIVERS</u> | |
|-------------|------------------------------|-------------------------------------|---|--------------------------|
| | | | <u>HAD BEEN DRINKING</u> | <u>ABOVE LEGAL LIMIT</u> |
| 1973 | 75 | 57 (76.0) | 39 (68.4) | 35 (61.4) |
| 1974 | 72 | 53 (73.6) | 35 (66.0) | 29 (54.7) |
| 1975 | 65 | 49 (75.4) | 31 (63.3) | 24 (49.0) |
| 1976 | 67 | 40 (59.7) | 23 (57.5) | 18 (45.0) |
| 1977 | 60 | 40 (66.7) | 28 (70.0) | 26 (65.0) |
| 1978 | 65 | 48 (73.9) | 29 (60.4) | 25 (52.1) |
| 1979 | 56 | 41 (73.2) | 32 (78.0) | 27 (65.9) |
| 1980 | 60 | 43 (71.7) | 28 (65.1) | 19 (44.2) |
| 1981 | 46 | 32 (69.6) | 28 (87.5) | 24 (75.0) |
| 1982 | 53 | 29 (54.7) | 21 (72.4) | 17 (58.6) |
| 1983 | 46 | 36 (78.3) | 23 (63.9) | 19 (52.8) |
| 1984 | 51 | 38 (74.5) | 22 (57.9) | 19 (50.0) |
| 1985 | 43 | 34 (79.1) | 17 (50.0) | 15 (44.1) |

APPENDIX H

PRINCE EDWARD ISLAND

TABLE H-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(PRINCE EDWARD ISLAND)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|-----|---------------|------------------|-------------------|----------------|--------------|
| 1979 | N | 17 | 7 | 9 | 0 | 33 |
| | (%) | (51.5) | (21.2) | (27.3) | (0.0) | (100) |
| 1980 | N | 14 | 12 | 9 | 0 | 35 |
| | (%) | (40.0) | (34.3) | (25.7) | (0.0) | (100) |
| 1981 | N | 6 | 9 | 6 | 0 | 21 |
| | (%) | (28.6) | (42.9) | (28.6) | (0.0) | (100) |
| 1982 | N | 5 | 3 | 8 | 0 | 16 |
| | (%) | (31.3) | (18.8) | (50.0) | (0.0) | (100) |
| 1983 | N | 23 | 4 | 4 | 0 | 31 |
| | (%) | (74.2) | (12.9) | (12.9) | (0.0) | (100) |
| 1984 | N | 21 | 4 | 5 | 1 | 31 |
| | (%) | (67.7) | (12.9) | (16.1) | (3.2) | (100) |
| 1985 | N | 15 | 7 | 15 | 0 | 37 |
| | (%) | (40.5) | (18.9) | (40.5) | (0.0) | (100) |

Traffic Injury Research Foundation of Canada, 1986.

TABLE H-2

DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATALY INJURED DRIVERS^{*}
 ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
 (PRINCE EDWARD ISLAND)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER > 80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|-----------------|-------------------------|------------------------------------|-------------------------------------|---------------------------|---|----------|---------|----------|----------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | > 150 |
| 1984 | AUTO | 12 | 10 (83.3) | 7 (70.0) | 6 (60.0) | 3 (30.0) | 1 (10.0) | 0 (0.0) | 0 (0.0) | 6 (60.0) |
| | TRUCK-VAN | 6 | 6 (100) | 3 (50.0) | 3 (50.0) | 3 (50.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 3 (50.0) |
| | TRACTOR-TRAILER | 0 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | MOTORCYCLE | 1 | 1 (100) | 1 (100) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (100) |
| 1985 | AUTO | 8 | 7 (87.5) | 3 (42.9) | 3 (42.9) | 4 (57.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 3 (42.9) |
| | TRUCK-VAN | 0 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | TRACTOR-TRAILER | 1 | 1 (100) | 1 (100) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (100) |
| | MOTORCYCLE | 4 | 4 (100) | 3 (75.0) | 2 (50.0) | 1 (25.0) | 1 (25.0) | 0 (0.0) | 0 (0.0) | 2 (50.0) |

^{*} 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE H-3

DISTRIBUTION OF BAC AMONG FATALITY INJURED DRIVERS (ALL VEHICLES EXCEPT BICYCLES,
SNOWMOBILES, AND FARM TRACTORS) ACCORDING TO AGE, SEX, AND TYPE OF COLLISION, BY YEAR OF DEATH
(PRINCE EDWARD ISLAND)

| YEAR | CATEGORY | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER >80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|-------|----------|-------------------------------|--|--|--------------------------------|--|-------------|------------|------------|-------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | >150 |
| 1985 | < 16 | 1 | 1 (100) | 0 (0.0) | 0 (0.0) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | 16 - 17 | 1 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | 18 - 19 | 0 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | 20 - 25 | 7 | 7 (100) | 5 (71.4) | 4 (57.1) | 2 (28.6) | 1 (14.3) | 0 (0.0) | 0 (0.0) | 4 (57.1) |
| | 26 - 35 | 2 | 2 (100) | 1 (50.0) | 1 (50.0) | 1 (50.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (50.0) |
| | 36 - 45 | 1 | 1 (100) | 0 (0.0) | 0 (0.0) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | 46 - 55 | 1 | 1 (100) | 0 (0.0) | 0 (0.0) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | > 55 | 2 | 2 (100) | 1 (50.0) | 1 (50.0) | 1 (50.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (50.0) |
| <hr/> | | | | | | | | | | |
| | MALE | 12 | 11 (91.7) | 7 (63.6) | 6 (54.5) | 4 (36.4) | 1 (9.1) | 0 (0.0) | 0 (0.0) | 6 (54.5) |
| | FEMALE | 3 | 3 (100) | 0 (0.0) | 0 (0.0) | 3 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| <hr/> | | | | | | | | | | |
| | SVA | 6 | 6 (100) | 5 (83.3) | 5 (83.3) | 1 (16.7) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 5 (83.3) |
| | MVA | 9 | 8 (88.9) | 2 (25.0) | 1 (12.5) | 6 (75.0) | 1 (12.5) | 0 (0.0) | 0 (0.0) | 1 (12.5) |

TABLE H-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(PRINCE EDWARD ISLAND)

| <u>YEAR</u> | <u>NUMBER OF DRIVERS</u> | <u>NUMBER TESTED (% TESTED)</u> | <u>NUMBER AND PERCENT OF TESTED DRIVERS</u> | |
|-------------|------------------------------|-------------------------------------|---|--------------------------|
| | | | <u>HAD BEEN DRINKING</u> | <u>ABOVE LEGAL LIMIT</u> |
| 1973 | 7 | 7 (100.0) | 4 (57.1) | 4 (57.1) |
| 1974 | 9 | 9 (100.0) | 5 (55.6) | 5 (55.6) |
| 1975 | 12 | 12 (100.0) | 5 (41.7) | 5 (41.7) |
| 1976 | 5 | 5 (100.0) | 5 (100.0) | 5 (100.0) |
| 1977 | 7 | 7 (100.0) | 6 (85.7) | 6 (85.7) |
| 1978 | 6 | 4 (66.7) | 4 (100.0) | 3 (75.0) |
| 1979 | 6 | 5 (83.3) | 2 (40.0) | 2 (40.0) |
| 1980 | 6 | 5 (83.3) | 0 (0.0) | 0 (0.0) |
| 1981 | 2 | 2 (100) | 2 (100.0) | 2 (100.0) |
| 1982 | 2 | 1 (50.0) | 1 (100.0) | 1 (100.0) |
| 1983 | 14 | 11 (78.6) | 6 (54.5) | 6 (54.5) |
| 1984 | 10 | 8 (80.0) | 6 (75.0) | 5 (62.5) |
| 1985 | 8 | 7 (87.5) | 3 (42.9) | 3 (42.9) |

APPENDIX I

NOVA SCOTIA

TABLE I-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(NOVA SCOTIA)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|-----|---------------|------------------|-------------------|----------------|--------------|
| 1985 | N | 98 | 45 | 28 | 3 | 174 |
| | (%) | (56.3) | (25.9) | (16.1) | (1.7) | (100) |

Traffic Injury Research Foundation of Canada, 1986.

TABLE I-2

DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATALY INJURED DRIVERS*
 ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
 (NOVA SCOTIA)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER >80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|-----------------|-------------------------|------------------------------------|-------------------------------------|--------------------------|---|----------|---------|----------|-----------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | >150 |
| 1985 | AUTO | 49 | 36 (73.5) | 22 (61.1) | 17 (47.2) | 14 (38.9) | 4 (11.1) | 1 (2.8) | 3 (8.3) | 14 (38.9) |
| | TRUCK-VAN | 21 | 14 (66.7) | 9 (64.3) | 8 (57.1) | 5 (35.7) | 1 (7.1) | 0 (0.0) | 0 (0.0) | 8 (57.1) |
| | TRACTOR-TRAILER | 1 | 1 (100) | 0 (0.0) | 0 (0.0) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | MOTORCYCLE | 12 | 9 (75.0) | 6 (66.7) | 6 (66.7) | 3 (33.3) | 0 (0.0) | 0 (0.0) | 2 (22.2) | 4 (44.4) |

* 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE 1-3

DISTRIBUTION OF BAC AMONG FATALY INJURED DRIVERS (ALL VEHICLES EXCEPT BICYCLES,
SNOWMOBILES, AND FARM TRACTORS) ACCORDING TO AGE, SEX, AND TYPE OF COLLISION, BY YEAR OF DEATH
(NOVA SCOTIA)

| YEAR | CATEGORY | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER > 80mg% (% TESTED) | NUMBER OF DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|-------|----------|-------------------------------|--|--|---------------------------------|---|-------------|-------------|-------------|--------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | > 150 |
| 1985 | < 16 | 6 | 2 (33.3) | 1 (50.0) | 0 (0.0) | 1 (50.0) | 1 (50.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| | 16 - 17 | 5 | 3 (60.0) | 1 (33.3) | 1 (33.3) | 2 (66.7) | 0 (0.0) | 0 (0.0) | 1 (33.3) | 0 (0.0) |
| | 18 - 19 | 5 | 3 (60.0) | 2 (66.7) | 2 (66.7) | 1 (33.3) | 0 (0.0) | 0 (0.0) | 1 (33.3) | 1 (33.3) |
| | 20 - 25 | 25 | 20 (80.0) | 15 (75.0) | 15 (75.0) | 5 (25.0) | 0 (0.0) | 0 (0.0) | 3 (15.0) | 12 (60.0) |
| | 26 - 35 | 19 | 15 (78.9) | 9 (60.0) | 8 (53.3) | 6 (40.0) | 1 (6.7) | 0 (0.0) | 1 (6.7) | 7 (46.7) |
| | 36 - 45 | 14 | 8 (57.1) | 6 (75.0) | 4 (50.0) | 2 (25.0) | 1 (12.5) | 1 (12.5) | 0 (0.0) | 4 (50.0) |
| | 46 - 55 | 10 | 5 (50.0) | 2 (40.0) | 2 (40.0) | 3 (60.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 2 (40.0) |
| | > 55 | 14 | 8 (57.1) | 4 (50.0) | 1 (12.5) | 4 (50.0) | 3 (37.5) | 0 (0.0) | 0 (0.0) | 1 (12.5) |
| <hr/> | | | | | | | | | | |
| | MALE | 76 | 55 (72.4) | 36 (65.5) | 31 (56.4) | 19 (34.5) | 4 (7.3) | 1 (1.8) | 6 (10.9) | 25 (45.5) |
| | FEMALE | 22 | 9 (40.9) | 4 (44.4) | 2 (22.2) | 5 (55.6) | 2 (22.2) | 0 (0.0) | 0 (0.0) | 2 (22.2) |
| <hr/> | | | | | | | | | | |
| | SVA | 55 | 39 (70.9) | 31 (79.5) | 26 (66.7) | 8 (20.5) | 4 (10.3) | 1 (2.6) | 6 (15.4) | 20 (51.3) |
| | MVA | 40 | 24 (60.0) | 9 (37.5) | 7 (29.2) | 15 (62.5) | 2 (8.3) | 0 (0.0) | 0 (0.0) | 7 (29.2) |
| | UNKNOWN | 3 | 1 (33.3) | 0 (0.0) | 0 (0.0) | 1 (100) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |

TABLE I-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(NOVA SCOTIA)

| <u>YEAR</u> | <u>NUMBER OF DRIVERS</u> | <u>NUMBER TESTED (% TESTED)</u> | <u>NUMBER AND PERCENT OF TESTED DRIVERS</u> | |
|-------------|------------------------------|-------------------------------------|---|--------------------------|
| | | | <u>HAD BEEN DRINKING</u> | <u>ABOVE LEGAL LIMIT</u> |
| 1985 | 43 | 35 (81.4) | 22 (62.9) | 17 (48.6) |

Traffic Injury Research Foundation of Canada, 1986.

APPENDIX J

AGGREGATE STATISTICS

(Eight Provinces)

TABLE J-1

PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS BY
VICTIM TYPE AND YEAR OF DEATH
(EIGHT PROVINCES)

PERSONS FATALLY INJURED AS:

| <u>YEAR</u> | | <u>DRIVER</u> | <u>PASSENGER</u> | <u>PEDESTRIAN</u> | <u>UNKNOWN</u> | <u>TOTAL</u> |
|-------------|-----|---------------|------------------|-------------------|----------------|--------------|
| 1985 | N | 1688 | 876 | 501 | 54 | 3119 |
| | (%) | (54.1) | (28.1) | (16.1) | (1.7) | (100) |

Traffic Injury Research Foundation of Canada, 1986.

TABLE J-2
DISTRIBUTION OF BLOOD ALCOHOL CONCENTRATION AMONG FATALITY INJURED DRIVERS*
ACCORDING TO VEHICLE TYPE, BY YEAR OF DEATH
(EIGHT PROVINCES)

| YEAR | VEHICLE TYPE | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER > 80mg% (% TESTED) | NUMBER OF DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|------|-----------------|-------------------------|---------------------------------------|--|---------------------------------|--|--------------|-------------|--------------|---------------|
| | | | | | | ZERO | 1 - 49 | | | |
| | | | | | | | 50 - 80 | 81 - 150 | > 150 | |
| 1985 | AUTO | 900 | 747 (83.0) | 376 (50.3) | 311 (41.6) | 371 (49.7) | 44 (5.9) | 21 (2.8) | 72 (9.6) | 239 (32.0) |
| | | | | | | 127 (46.0) | 14 (5.1) | 13 (4.7) | 25 (9.1) | 97 (35.1) |
| | TRUCK-VAN | 330 | 276 (83.6) | 149 (54.0) | 122 (44.2) | 25 (83.3) | 1 (3.3) | 0 (0.0) | 0 (0.0) | 4 (13.3) |
| | TRACTOR-TRAILER | 40 | 30 (75.0) | 5 (16.7) | 4 (13.3) | 65 (37.8) | 20 (11.6) | 13 (7.6) | 31 (18.0) | 43 (25.0) |
| | MOTORCYCLE | 204 | 172 (84.3) | 107 (62.2) | 74 (43.0) | | | | | |

* 16 years of age and over.

Traffic Injury Research Foundation of Canada, 1986.

TABLE J-3

DISTRIBUTION OF BAC AMONG FATALLY INJURED DRIVERS (ALL VEHICLES EXCEPT BICYCLES,
SNOWMOBILES, AND FARM TRACTORS) ACCORDING TO AGE, SEX, AND TYPE OF COLLISION, BY YEAR OF DEATH
(EIGHT PROVINCES)

| YEAR | CATEGORY | TOTAL NUMBER OF DRIVERS | NUMBER OF DRIVERS TESTED (% TOTAL) | NUMBER HAD BEEN DRINKING (% TESTED) | NUMBER > 80mg% (% TESTED) | DRIVERS BY BLOOD ALCOHOL CONCENTRATION (% OF NUMBER TESTED) | | | | |
|---------|----------|-------------------------------|--|--|---------------------------------|--|-------------|-------------|---------------|---------------|
| | | | | | | ZERO | 1 - 49 | 50 - 80 | 81 - 150 | > 150 |
| 1985 | < 16 | 68 | 31 (45.6) | 3 (9.7) | 0 (0.0) | 28 (90.3) | 1 (3.2) | 2 (6.5) | 0 (0.0) | 0 (0.0) |
| | 16 - 17 | 78 | 63 (80.8) | 26 (41.3) | 18 (28.6) | 37 (58.7) | 4 (6.3) | 4 (6.3) | 8 (12.7) | 10 (15.9) |
| | 18 - 19 | 137 | 119 (86.9) | 67 (56.3) | 53 (44.5) | 52 (43.7) | 9 (7.6) | 5 (4.2) | 20 (16.8) | 33 (27.7) |
| | 20 - 25 | 433 | 374 (86.4) | 239 (63.9) | 184 (49.2) | 135 (36.1) | 32 (8.6) | 23 (6.1) | 51 (13.6) | 133 (35.6) |
| | 26 - 35 | 348 | 296 (85.1) | 174 (58.8) | 150 (50.7) | 122 (41.2) | 15 (5.1) | 9 (3.0) | 40 (13.5) | 110 (37.2) |
| | 36 - 45 | 220 | 180 (81.8) | 91 (50.6) | 77 (42.8) | 89 (49.4) | 11 (6.1) | 3 (1.7) | 8 (4.4) | 69 (38.3) |
| | 46 - 55 | 116 | 100 (86.2) | 31 (31.0) | 27 (27.0) | 69 (69.0) | 2 (2.0) | 2 (2.0) | 2 (2.0) | 25 (25.0) |
| | > 55 | 279 | 192 (68.8) | 58 (30.2) | 41 (21.4) | 134 (69.8) | 13 (6.8) | 4 (2.1) | 8 (4.2) | 33 (17.2) |
| <hr/> | | | | | | | | | | |
| MALE | | 1376 | 1115 (81.0) | 620 (55.6) | 498 (44.7) | 495 (44.4) | 76 (6.8) | 46 (4.1) | 119 (10.7) | 379 (34.0) |
| FEMALE | | 304 | 240 (78.9) | 69 (28.7) | 52 (21.7) | 171 (71.2) | 11 (4.6) | 6 (2.5) | 18 (7.5) | 34 (14.2) |
| <hr/> | | | | | | | | | | |
| SVA | | 693 | 589 (85.0) | 404 (68.6) | 342 (58.1) | 185 (31.4) | 36 (6.1) | 26 (4.4) | 76 (12.9) | 266 (45.2) |
| MVA | | 977 | 763 (78.1) | 283 (37.1) | 207 (27.1) | 480 (62.9) | 50 (6.6) | 26 (3.4) | 61 (8.0) | 146 (19.1) |
| UNKNOWN | | 10 | 3 (30.0) | 2 (66.7) | 1 (33.3) | 1 (33.3) | 1 (33.3) | 0 (0.0) | 0 (0.0) | 1 (33.3) |

TABLE J-4

DISTRIBUTION OF BAC AMONG FATALLY INJURED AUTOMOBILE DRIVERS
16 YEARS OF AGE AND OLDER DYING WITHIN 6 HOURS OF CRASH
(EIGHT PROVINCES)

| <u>YEAR</u> | <u>NUMBER OF DRIVERS</u> | <u>NUMBER TESTED (% TESTED)</u> | <u>NUMBER AND PERCENT OF TESTED DRIVERS</u> | |
|-------------|------------------------------|-------------------------------------|---|--------------------------|
| | | | <u>HAD BEEN DRINKING</u> | <u>ABOVE LEGAL LIMIT</u> |
| Total | 788 | 710 (90.1) | 360 (50.7) | 297 (41.8) |

Traffic Injury Research Foundation of Canada, 1986.

APPENDIX K

FATALITY DATABASE: DATA SPECIFICATION

ALCOHOL USE BY TRAFFIC FATALITIES:
SPECIFICATION OF DATA COLLECTED

| <u>DATUM</u> | <u>COMMENT</u> |
|--|---|
| Provincial Crash Number | - The provincial crash identification number. For non-highway, motor-vehicle-related accidents, this number will contain multiple "9"s. |
| Province | - Province in which crash occurs. |
| Crash Year | |
| Crash Month | |
| Crash Day of Month | |
| Crash Day of Week | |
| Crash Hour | |
| Collision Object(s) | - The object(s) with which the motor vehicle has collided in the accident sequence. |
| Victim's Vehicle Type | |
| Police Report Vehicle Number of Victim Vehicle | - The vehicle number assigned the vehicle by police completing the accident report form. |
| Type of Victim | - Driver, passenger, pedestrian, etc., reported according to the standardized format used in police reports. |
| Victim Age | |
| Victim Sex | |
| Elapsed Hours To Death | - The total number of elapsed hours from the crash occurrence until death. |
| Alcohol Test One Result | |
| Alcohol Test One Medium | |
| Specimen for Alcohol Test One | - Antemortem or postmortem specimen |
| Alcohol Test Two Result | |
| Alcohol Test Two Medium | |
| Specimen for Alcohol Test Two | - Antemortem or postmortem specimen |

| | | |
|---|---|--------------|
| TIRF | 1 | YEAR |
| TRAFFIC INJURY RESEARCH FOUNDATION DATABASE | 1 | |
| | 1 | 1985 |
| FIELD INFORMATION SHEET | 1 | |
| | 1 | |
| | 1 | FORMAT: |
| VARIABLE ACRONYM: PROV | 1 | |
| | 1 | Alpha |
| COMMON NAMES: Province | 1 | 2 Characters |
| | 1 | |

DEFINITION: This TIRF specific variable represents the province in which the accident occurred.

VALUES

[illegible]

NOTES:

| | | |
|---|---|---------|
| TIRF | 1 | YEAR |
| TRAFFIC INJURY RESEARCH FOUNDATION DATABASE | 1 | |
| | 1 | 1985 |
| FIELD INFORMATION SHEET | 1 | |
| | 1 | |
| | 1 | FORMAT: |
| VARIABLE ACRONYM: CRSY | 1 | |
| | 1 | Numeric |
| COMMON NAMES: Crash year | 1 | 2 Digit |
| | 1 | |

DEFINITION: The last two digits of the year in which the accident occurred.

VALUES

[illegible]

NOTES:

| | | |
|--|---|--------------|
| TIRF | 1 | YEAR |
| TRAFFIC INJURY RESEARCH FOUNDATION DATABASE | 1 | |
| | 1 | 1985 |
| FIELD INFORMATION SHEET | 1 | |
| | 1 | |
| | 1 | FORMAT: |
| VARIABLE ACRONYM: ... (cont'd.) | 1 | |
| | 1 | Alpha |
| COMMON NAMES: Incident collision, collision object | 1 | 2 Characters |
| | 1 | |

DEFINITION:

VALUES

| PROVINCE | RANGE | TIRF | RANGE |
|----------|-------|-----------------------|-------|
| | 1 | | |
| | 1 | Tree/Bush | 29 |
| | 1 | Parking Meter | 30 |
| | 1 | Building/Wall | 31 |
| | 1 | Curbing | 32 |
| | 1 | Fence | 33 |
| | 1 | Culvert | 34 |
| | 1 | Snow embankment/Drift | 35 |
| | 1 | Rock cut | 36 |
| | 1 | Delineator post | 37 |
| | 1 | Fire hydrant | 38 |
| | 1 | Median/Barrier | 39 |
| | 1 | Crash cushion | 40 |
| | 1 | Gravel pile | 41 |
| | 1 | Ran off road | 50 |
| | 1 | Overtaken | 51 |
| | 1 | Fire/Explosion | 52 |
| | 1 | Submersion | 53 |
| | 1 | Skidding/Sliding | 54 |
| | 1 | Load spill | 55 |
| | 1 | Runaway on grade | 56 |
| | 1 | Traffic island | 57 |
| | 1 | Jack-knife | 58 |
| | 1 | Motorcycle | 59 |
| | 1 | Street car/trolley | 60 |
| | 1 | ATV | 61 |
| | 1 | Moped (under 50cc) | 62 |
| | 1 | Not applicable | 97 |
| | 1 | Unknown | 98 |
| | 1 | Other | 99 |

NOTES:

| | | |
|---|---|----------|
| TIRF | 1 | YEAR |
| TRAFFIC INJURY RESEARCH FOUNDATION DATABASE | 1 | |
| | 1 | 1985 |
| FIELD INFORMATION SHEET | 1 | |
| | 1 | |
| | 1 | FORMAT: |
| VARIABLE ACRONYM: OBJ1, OBJ2,... | 1 | |
| | 1 | Numeric |
| COMMON NAMES: Object identification number | 1 | 2 Digits |
| | 1 | |

DEFINITION: This is the number the police assign to each object involved in the accident, including pedestrians and bicycles.

VALUES

| PROVINCE | RANGE | 1 | TIRF | RANGE |
|------------------|---------|---|------|-------|
| | | 1 | | |
| British Columbia | 01 - 19 | 1 | | |
| bicycle | 20 - 29 | 1 | | |
| pedestrian | 30 - 39 | 1 | | |
| witness | 90 | 1 | | |
| Alberta | 01 - 99 | 1 | | |
| pedestrian | n | 1 | | |
| Saskatchewan | 01 - 99 | 1 | | |
| pedestrian | n | 1 | | |
| Manitoba | 01 - 43 | 1 | | |
| pedestrian | n | 1 | | |
| Ontario | 01 - 99 | 1 | | |
| pedestrian | 00 | 1 | | |
| New Brunswick | 01 - 99 | 1 | | |
| pedestrian | 97 | 1 | | |
| Nova Scotia | 01 - 99 | 1 | | |
| pedestrian | 97 | 1 | | |
| P.E.I. | 01 - 99 | 1 | | |
| pedestrian | 97 | 1 | | |
| | | 1 | | |
| | | 1 | | |
| | | 1 | | |
| | | 1 | | |
| | | 1 | | |
| | | 1 | | |
| | | 1 | | |
| | | 1 | | |
| | | 1 | | |
| | | 1 | | |
| | | 1 | | |

NOTES:

| | | |
|---|---|---------|
| TIRF | 1 | YEAR |
| TRAFFIC INJURY RESEARCH FOUNDATION DATABASE | 1 | |
| | 1 | 1985 |
| FIELD INFORMATION SHEET | 1 | |
| | 1 | |
| | 1 | FORMAT: |
| VARIABLE ACRONYM: PSN1, PSN2,... | 1 | |
| | 1 | Numeric |
| COMMON NAMES: Position in/on vehicle, victim position | 1 | 1 Digit |
| | 1 | |

DEFINITION: A number denoting the position of a person within or on (in the case of trucks), an accident involved vehicle. The number refers to positions designated on a plan-view outline representation of the vehicle (see diagram below). In some provinces the "persons" are victims only, but in others they may be all occupants of involved vehicles.

VALUES

[illegible]

NOTES: This variable is used to indicate victim type as well as victim identification. Alberta will require minor recodes, because they do not distinguish between passenger location.

